

# U.S. NAVY MEDICINE

May 1977



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**COVER:** LCDR Sandra Holmes, one of 2,600 Navy nurses who will observe the Nurse Corps' 69th anniversary on 13 May, reviews a patient's medical record at U.S. Naval Hospital, Subic Bay, Republic of the Philippines.

# From the Surgeon General

## Again, Our Patients . . .

RECENTLY I asked the commanding officers of all Navy hospitals and regional medical and dental centers to establish at their facilities health care consumers' councils and patient education programs. I believe that our patients will better understand and appreciate the efforts we are making in their behalf if they are aware of how the Navy health care system works and are encouraged to be active participants in that system.

Health care consumers' councils will give us an opportunity to win the Navy family's support for our programs and policies. The councils will also be effective forums through which our patients and prospective patients can make their needs and opinions known to us. This exchange of information is fundamental to achieving satisfied patients and responsive health care delivery.

Patient education programs, too, hold much promise. Navy men and women, as well as their families, gain very tangible benefits when they learn to distinguish minor from serious illness, and know how to use simple therapeutic methods. Another advantage is that through patient education we can reduce health care costs: informed consumers of health care are less likely to make unnecessary visits to our emergency rooms, or to demand specialty consultation for treatment of a minor complaint.

Our commands have responded to my request with enthusiastic support. Here are excerpts from some of the excellent proposals we have received. These ideas may help you develop your own programs and councils.

"The [health care consumers' council] has met every two months, and I

have attended the meetings since I took command. . . . I have found them valuable to respond to complaints and to discuss our efforts to provide quality care for our patients."

"A formal program was long overdue, in my judgment, and you can be assured that the provisions of our instruction will be monitored by me personally. . . ."

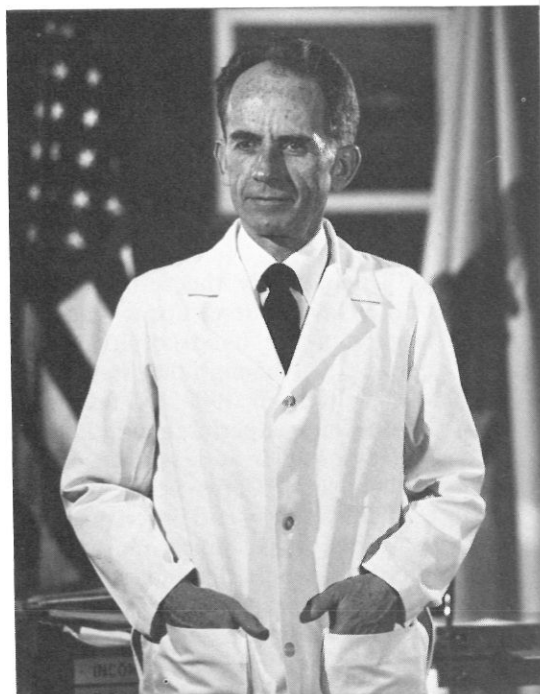
"We have written MacDonald Army Hospital and received some excellent examples of their booklets, many of which we intend to use. [We have corresponded with] various societies and associations asking for their pamphlets."

"We have developed a booklet for our pediatric patients and have a similar booklet for our obstetrical patients at the printers now."

"We have contacted HSETC to see what kind of video cassette support they can provide, since it is my intention to use our existing cassette player to educate our patients in our waiting rooms."

"We have formally initiated our inpatient representative program this month . . . invaluable in assessing our efforts in the inpatient care area. . . ."

"[We have designed a program to] inform our public of the purposes, capabilities, limitations and functions of the emergency room, and discourage the use of the emergency room for inappropriate problems. [We plan to] educate our beneficiaries as to the value and significance of medical records."



VADM Arentzen

"[We will] teach our beneficiaries to recognize the early signs of significant illness and encourage them to seek medical attention promptly."

"[We will] teach our beneficiaries to recognize and manage minor illnesses and injuries on a self-help basis."

"Rest assured we will do our very best in this vital area."

Indeed it is a vital area. We must ensure that the total care of patients remains our primary concern. Whether these patients are seen aboard ship, in operational units, or in our clinics or hospitals, we must at all times manifest a concerned regard for their welfare. Every effort should be made to enlist our patients' support, and to promote greater understanding of our efforts.

W.P. ARENTZEN  
Vice Admiral, Medical Corps  
United States Navy

## Department Rounds

# Open Letter to Nurse Corps Officers

"Undoubtedly the future status of the Navy [Nurse] Corps will rest largely in the hands of its members. . . ." Although that statement was written in 1909 by the first Nurse Corps superintendent, Esther V. Hasson, it is no less true today, as the Nurse Corps celebrates its 69th anniversary and enters its 70th year. In this, our anniversary month, I would like to send my greetings to each Nurse Corps officer and discuss with you some issues of vital interest.

Like other Medical Department corps, the Nurse Corps is trying to do more with less under today's severe fiscal constraints. The requirement to staff two additional hospitals—New Orleans and Okinawa—with a small net gain in billets has resulted in everyone having to pull a greater share of the total load, and each of you has responded in the true "can do" tradition.

The Nurse Corps, indeed the total Navy Medical Department, is faced today with challenges never before experienced. Not the least of these challenges is personnel assignment.

**Assignments.** Constraints on permanent change of station funds, and the requirement to adhere strictly to projected rotation dates, make our detailers' task very difficult and often frustrating. Further complicating the situation is the increasing number of married nurses who request duty with their spouses. We have been fairly successful to date in arranging concurrent tours for married couples. Much of that success can be attributed to frequent communication between married officers' detailers and to the cooperation we have received from each military member in keeping detailers informed of his or her personal situation and future plans.

Since all assignments, but particularly those for married personnel, require much thought and advance planning, it is imperative that officers continue to provide detailers with complete information on their spouse's status: full name, rank and grade, social security number, year group, present duty station, projected rotation date, and name and telephone number of detailer. This information should be submitted on the Officer Preference and Personal Information Card (NAVPERS 1301.1) at least six months prior to the scheduled rotation date; it is almost impossible to arrange concurrent tours after one spouse has received permanent change of station orders. All officer assignments are based on the availability of a valid, vacant billet, and on the officer's career development needs, qualifications and personal wishes.

**Augmentation.** It has been gratifying to observe that the increased

Shown below are the director, Navy Nurse Corps, and some of her support personnel assigned to the Washington, D.C. area.



RADM Maxine Conder (left), Nurse Corps director, confers with CDR Nancy Lundquist, her executive assistant.



LCDR Joan Engel (above) heads BUMED's Junior Nurse Corps Assignments Branch. CAPT Ruth Wilson (right) is director of Nurse Corps Programs, HSETC.







Planning assignments for more than 2,500 officers requires close coordination between CAPT Mary Nielubowicz, Nurse Corps deputy director, and RADM Conder



CAPT Phyllis Elsass selects photographs for international nursing convention.



interest in augmentation which began several years ago has persisted. Last year, 143 officers (just over 50% of those who applied) were selected for augmentation; 44 were male and 99 were female. I encourage officers who were not selected to reapply when they are again eligible. Officers are required to complete at least two years of active commissioned service before submitting a request for augmentation. Remember, the selection board meets each February and August, and applications for augmentation must reach the Bureau of Naval Personnel 45 days before the board convenes, so initiate your request early.

**Training.** In fiscal year 1978, we will have 87 billets for full-time undergraduate, graduate, and anesthesia out-service education. A selection board meets in March and October to consider applicants for full-time out-service programs. Nurses who desire full-time education should apply one year before their projected rotation date to allow time for applications to be processed and for selectees to gain admission to a university. Officers cannot be ordered to school before their projected rotation dates.

Career Nurse Corps officers are given priority for full-time duty under instruction. When Nurse Corps scholarship programs were discontinued in 1975, the Department of Defense encouraged us to recruit college graduates and to provide qualified active-duty diploma school graduates the opportunity to earn a baccalaureate degree. We use our educational billets to meet the latter goal, and to prepare nurses for specific positions in clinical specialties, administration, education and research through graduate education. An advantage of our billet subspecialty coding system, which I'll describe later, is that it will permit us to define and justify our requirements for nurses with advanced preparation.

Just five years ago, the Nurse Corps recognized the need to prepare nurses for expanded roles in

pediatrics, obstetrics/gynecology, and family practice. Today we have 29 family nurse practitioners, 21 pediatric nurse practitioners, 19 Ob/Gyn nurse practitioners and 5 nurse midwives. Unfortunately, although practitioners as well as nurse anesthetists are in great demand, billets for them are limited. Until we can study the Medical Department's requirements for nurse practitioners in general and Ob/Gyn practitioners in particular, we have suspended the Ob/Gyn practitioner course at Naval Regional Medical Center Portsmouth, Va.

This year, largely because of new state laws requiring continuing education for relicensure, the Naval Health Sciences Education and Training Command (HSETC) has sponsored regional short courses for Navy nurses. Those courses have been a resounding success because of outstanding cooperation and planning by regional commands and nursing services. I congratulate all who participated, and I anticipate that we will have more such programs.

We have established 14 billets for regional educational coordinators, who will soon be assigned. Their job

Program, developed by Nurse Corps officers at HSETC, has been well accepted by field personnel. Reports indicate that the audiovisual modules have been particularly useful, so additional modules are being produced. I would like to stress the continuing importance of timely submission of evaluation reports, both by orientees and educational coordinators. Comments on these evaluations provide the basis for revisions in and further development of orientation materials.

**Resource management.** To manage our personnel effectively, we must have ready access to current information about each officer. This year, a computerized personnel system has been developed for the Nurse Corps which will permit retrieval of selected information on our officers. To help us keep the data in this system up to date, it is essential that you keep us informed, via your officer preference card, of changes which affect your career and assignments. Such changes include marriage, pregnancy, new duty preferences and participation in educational programs.

Because of increasing specialization within the nursing profession, the Navy Officers Subspecialty System has been expanded to include nursing specialties. All Nurse Corps billets have been coded to reflect clinical or functional responsibilities and level of education and experience required. Our nursing consultants appointed earlier this year will help determine the criteria to be applied in assigning subspecialty codes to individual officers; that is, they will define the amounts of education or experience (or a combination of both) an officer must have to qualify for each subspecialty code. Then, information obtained from questionnaires you have been asked to complete will be evaluated, and you will be assigned an appropriate code or codes. Computerization of this information will greatly assist our detailers by making it easier and faster to identify officers who are qualified for certain assignments.



**LCDR Miki Iawata (NC), family nurse practitioner, examines a young patient.**

Specialty training is still available in operating room nursing. Since we established the operating room orientation course at Naval Regional Medical Centers Charleston, S.C., and Camp Pendleton, Calif., some 45 Nurse Corps officers have been trained to function as beginning members of an operating room staff. I encourage active-duty nurses to consider this program. We are exploring the possibility of allowing members of the selected Reserve to attend the course, on a space available basis, to prepare for assignments on Reserve surgical teams.

will be to assess educational needs within the region, and to plan, coordinate and evaluate on-going programs, including the Continuing Education Approval and Recognition Program (CEARP). Since the CEARP was established last November [see *US Navy Medicine*, March 1977], more than 35 nursing continuing education programs have been submitted for HSETC approval. We will now ask the American Nurses' Association to accredit the Nurse Corps' continuing education approval and recognition process.

The Nursing Service Orientation

Although subspecialty codes will not be the sole basis for assignments, they will help us use our personnel in the best way. Once initial subspecialty codes have been assigned, we will rely on you to tell us about changes in your qualifications which warrant a new code. Qualifications for each code and the method for submitting changes in your qualifications will be published.

Efficient use of our scarce nursing resources is imperative, and many initiatives are under way to improve our manpower management. Over the next few years, many of you will be asked to assist in the development of the Shore Requirements, Standards and Manpower Planning System (SHORSTAMPS). This project, a joint effort of the Chief of Naval Operations and the Bureau of Medicine and Surgery in the medical mission area, will give us an objective standard for determining total military and civilian manpower requirements. Until SHORSTAMPS is completed, manpower planning factors based primarily on workload will be used to redistribute Nurse Corps personnel. Directors of nursing services should be alert to changes in their authorized billets, which will be reflected in manpower documents.

**Recruiting.** One of our brightest areas is recruiting. Even though all nurse subsidy programs were cancelled over a year ago, the Nurse Corps is at authorized strength and the future looks good. Many well-qualified applicants are seeking direct appointments, citing opportunities for professional practice and growth as the reason for their interest in the Navy. Our recruiters should be commended, as should all of you who have taken prospective applicants on tours of your hospitals. Obviously, you are projecting a picture of Navy nursing as very professional and vibrant.

**New directions.** The Nursing Division is broadening professional activities in a number of areas. For example, we have been working with BUMED's Reserve Division to



ENS (now LTJG) John Jacobs, Navy nurse at NRMCC Camp Lejeune

monitor the progress of Project Readiness. Although some Nurse Corps billets were lost in the Project Readiness reorganization of the selected Reserve, I have high hopes of recovering these billets in FY78, if not sooner. To promote closer collaboration between the active-duty and inactive Reserve components of the Nurse Corps, I have asked that a senior inactive Reserve nurse be assigned as liaison with the Nurse Corps. Efforts are under way to establish a billet for this officer.

Another of my objectives is to establish better communication between field personnel and nurses at BUMED. During my visits to Navy hospitals and medical centers, I have seen many worthwhile local innovations, particularly in nursing audits, and I want to make these innovations available to all our facilities. I encourage you to send to BUMEN Code 322 any locally-developed materials so we may review them for applicability to other commands.

In support of the Navy health care system's highest priority, to provide appropriate and timely health care to the operating forces of the Navy and Marine Corps, I encourage all of you to search for ways to improve our service to the fleet. I urge directors of nursing services to examine Nurse Corps involvement in meeting the health care needs of the

operating forces at the local level, and to send me your new ideas for increasing that involvement.

What does the future hold for us? I see greater opportunities for horizontal promotions—career progression in clinical as well as administrative paths. Not every Nurse Corps captain will be a chief nurse; therefore, I hope to see more of you willing to remain in your field of expertise—operating room, anesthesia and critical care nursing, to name a few. The current structure of our nursing services may not fully meet patient care needs in this day of increased ambulatory care, regionalization, and tri-service cooperation. That structure needs to be reviewed. Also, we must take a more systematic approach to quality assurance, patient care audits and evidence of professional competence.

Our new personnel management system will allow us to use our personnel more efficiently and will provide formal career paths and ladders. We will be more assured of our future requirements and will use our educational billets prudently to prepare for them.

How very proud I am of you. I frequently hear compliments on the performance of Nurse Corps officers. You are successfully meeting the challenges of increased patient workload, expanding technologies, and diminishing resources. Indeed, the future of the Navy Nurse Corps does rest largely in the hands of its members. We are truly full and productive members of the Navy health care team, and we must never let others forget that each Nurse Corps officer plays a vital role on this team. I look to the next decade with hope, enthusiasm, and pride.

With warmest regards,

Sincerely,

*Maxine Conder*

MAXINE CONDER  
Rear Admiral, NC, USN  
Director, Navy Nurse Corps



# Six Tapped for Flag Rank

The Medical Department has six new flag officers, four from the Medical Corps and two from the Dental Corps.

RADM-selectee **Eustine P. Rucci** (MC), commanding officer of Naval Regional Medical Center Long Beach, Calif., since 1974, was born 4 Feb 1929 in Waukesha, Wisc. He was commissioned a lieutenant (junior grade) in the Naval Reserve in 1953, and after receiving his M.D. degree one year later from Marquette University School of Medicine, served an internship at Naval Hospital Great Lakes, Ill.

In 1955, after attending flight surgeon training, Dr. Rucci was assigned to Fleet Air Support Squadron 201. Subsequent assignments included residency training in obstetrics and gynecology at Naval Hospital Great Lakes, and duty as senior medical officer at Naval Air Station Kenitra, Morocco. In 1966 Dr. Rucci came to the Bureau of Medicine and Surgery to head the Medical Corps assignment and distribution section. Assignments followed as senior medical officer aboard the USS *Hancock* (CVA-19) and as assistant chief of the Ob/Gyn Service at Naval Hospital Bethesda, Md.

Dr. Rucci has had a long association with the medical facility at Camp Pendleton, Calif. He was assigned there as a staff physician early in his career and returned later as chief of the Ob/Gyn Service, executive officer, and deputy director/executive officer of the newly designated Naval Regional Medical Center Camp Pendleton.

Dr. Rucci is a diplomate of the American Board of Obstetrics and Gynecology, a Fellow of the American College of Obstetricians and Gynecologists, a member of the American Medical Association, the Association of Military Surgeons of the U.S., and the Society of U.S. Naval Flight Surgeons, and an

honorary member of the Fleet Reserve Association. He holds the Meritorious Service Medal, Navy Unit Commendation, National Defense Service Medal with bronze star, Armed Forces Expeditionary Medal (Korea), Vietnam Service Medal with bronze star, Republic of Vietnam Meritorious Unit Citation, and Republic of Vietnam Campaign Medal with Device.

RADM-selectee **Roger F. Milnes** (MC), commanding officer of Naval Regional Medical Center Camp Pendleton, Calif., since 1975, was born 14 April 1923 in Oneida, N.Y. He entered the Navy in 1943 under the V-12 Program and was commissioned an ensign in the Naval Re-



Selected for flag rank: (from left) CAPTs Rucci, Milnes, Gorsuch

serve in 1946. After receiving his M.D. degree in 1947 from the University of Rochester School of Medicine, he completed a surgical internship at New York Hospital in New York City, and a surgical residency at the Hitchcock Clinic in Hanover, N.H.

Dr. Milnes served on the staff of Naval Hospital Chelsea, Mass., and with the First Marine Division in Korea before leaving active duty in 1954 for further training in surgery at the University of Michigan. Returning to active duty in 1960, he served in the USS *Oriskany* (CVA-

34), as a thoracic surgeon at Naval Hospital Camp Pendleton, and as assistant chief of surgery at Naval Hospital Great Lakes, Ill. After a tour in Vietnam as chief of surgery in the USS *Sanctuary* (AH-17), he became chief of surgery at Naval Hospital Great Lakes and subsequently at Naval Hospital San Diego, Calif.; in 1973 he was named director of clinical services and deputy commanding officer of the San Diego facility.

Dr. Milnes, who is a diplomate of the American Board of Surgery and American Board of Thoracic Surgery, is a member of the surgical faculty of the University of California at San Diego, where he has also served as associate dean. He holds the Navy Commendation Medal with Combat V and gold star, two Navy Unit Commendations, the American Campaign Medal, World War II Victory Medal, National Defense Service Medal with bronze

star, Korean Service Medal, Vietnam Service Medal with four bronze stars, United Nations Service Medal, Republic of Vietnam Meritorious Unit Citation, and Republic of Vietnam Campaign Medal with Device.

RADM-selectee **George E. Gorsuch** (MC) has been commanding officer of U.S. Naval Regional Medical Center Yokosuka, Japan, since 1975, with additional duties as staff medical officer, Commander U.S. Naval Forces Japan; fleet surgeon, Commander Seventh Fleet; and joint staff medical adviser,



Commander U.S. Forces Japan.

Dr. Gorsuch was born 9 May 1929 in Toledo, Ohio. He was commissioned an ensign in the Naval Reserve in 1950 and, after receiving his M.D. degree from the University of Cincinnati School of Medicine in 1954, completed an internship at Naval Hospital Philadelphia, Pa., and residency training in internal medicine and cardiovascular disease at Naval Hospitals San Diego, Calif., and Bethesda, Md. Following assignments as head of cardiology at Naval Hospital Oakland, Calif., as medical officer of U.S. Naval Support Activity London, England, and as head of the cardiology branch, Internal Medicine Department, Naval Hospital Bethesda, Dr. Gorsuch served in South Vietnam from 1968 through 1969 as chief of medicine aboard the *USS Repose* (AH-16). On his return to the U.S. he was named chairman of the Internal Medicine Depart-

Meritorious Unit Commendation, National Defense Service Medal with bronze star, Vietnam Service Medal with bronze star, Republic of Vietnam Meritorious Unit Citation, and Republic of Vietnam Campaign Medal with Device.

Naval Reserve RADM-selectee **Matthias H. Backer, Jr.** (MC), is commander of Naval Regional Medical Center 2812 in St. Louis and clinical professor at St. Louis University Medical School. As a flag officer, he will be responsible for Medical Reserve recruiting and career development, and for supervising the Medical School Liaison Officer Program.

Dr. Backer was born 19 Dec 1926 in St. Louis. He enlisted in the Hospital Corps in 1944, and after serving two years on active duty was commissioned an ensign in the Naval Reserve. He received his M.D. degree in 1950 from St. Louis

fairs, and served on the Executive Committee of the Faculty from 1971 to 1976. He has been the school's Navy medical school liaison officer since 1957.

Dr. Backer has served as chief of the Ob/Gyn services at two St. Louis hospitals—St. Joseph's and St. Anthony's—and as president of the St. Louis Gynecological Society. His Reserve career has included assignments as training officer of Medical Reserve Company 9-1, staff medical officer of the St. Louis Reserve groups and readiness commands, and commanding officer of Naval Reserve Medical Company 9-22 in St. Louis.

Dr. Backer is a diplomate of the National Board of Medical Examiners and American Board of Obstetrics and Gynecology, a Fellow of the American College of Surgeons, American College of Obstetricians and Gynecologists and Central Association of Obstetricians and Gynecologists, and a member of the American Medical Association. He holds the Navy Achievement Medal, American Theatre Medal, World War II Victory Medal, National Defense Service Medal, Armed Forces Reserve Medal, and Naval Reserve Medal.

RADM-selectee **Julian J. Thomas, Jr.** (DC), commanding officer of Naval Regional Dental Center Parris Island, S.C., was born 10 Oct 1927 in Nashville, Tenn. He was appointed to the rank of lieutenant (junior grade) in the Naval Reserve in 1952. He received his D.D.S. degree from the University of Tennessee College of Dentistry in 1953 and served an internship at Naval Hospital Philadelphia and a tour aboard the *USS Albany* (CA-123) before his release from active duty in 1956. Two years later he accepted a regular Navy commission, with subsequent assignments to the Naval Dental School in Bethesda, the *USS Little Rock* (CLG-4), and the Naval Dispensary, Washington, D.C. Dr. Thomas then completed postgraduate training at the Naval Dental School and earned an M.S.



**Backer, Thomas, Vaughn**

ment at Naval Hospital Oakland, where in 1973 he became director of clinical services and deputy commanding officer of the regional medical center.

Dr. Gorsuch is a diplomate of the American Board of Internal Medicine, a Fellow of the American College of Physicians, an Associate Fellow of the American College of Cardiology, and a member of the American Medical Association and the Association of Military Surgeons of the U.S. He holds the Navy Commendation Medal with gold star, Navy Unit Commendation,

University Medical School and returned to active duty for a one-year internship at Naval Hospital Bethesda. Since then he has participated in the Ready Reserve.

Following residency training in obstetrics and gynecology at St. Louis University Hospitals, Dr. Backer began a long association with St. Louis University Medical School, where he has served as instructor, senior instructor, assistant and associate clinical professor, and clinical professor. He currently sits on the school's committees on faculty promotions and faculty af-

degree from the Indiana University School of Dentistry. He taught at the Naval Dental School from 1966 to 1970, when he became dental officer of U.S. Naval Support Activity, Naples, with additional duty at U.S. Naval Hospital Naples and as staff dental officer for Commander Fleet Air Mediterranean. In 1974 he was named head of the Dental Department at the Marine Corps Recruit Depot, Parris Island, and in 1975 became the first commanding officer of the newly established Naval Regional Dental Center Parris Island.

Dr. Thomas is a Fellow of the American College of Dentists, chairman of the membership committee of the American Academy of Gold Foil Operators, and a member of the American Dental Association, Academy of Operative Dentistry, and International Association for Dental Research. He holds the Navy Expeditionary Medal (Cuba), Navy Occupation Service Medal with Europe Clasp, and National Defense Service Medal with bronze star.

Naval Reserve RADM-selectee **William J.H. Vaughn** (DC) is chairman of the Recruiting District Assistance Council, Dallas, Tex., and has a private dental practice in Dallas. He was born 7 Jan 1920 in Williamston, S.C. He enlisted in the Navy in 1939, and served on active duty for the next six years. In 1949, while he was a dental student, he was commissioned an ensign (HP) in the Naval Reserve.

Dr. Vaughn received his D.D.S. degree from Baylor University College of Dentistry, Dallas, in 1952, and since then has been in private practice.

Dr. Vaughn has served on the Eighth Naval District's Naval Reserve Counseling Board and Naval Reserve Regional Planning Board in Dallas, the National Policy Board of the Naval Surface Reserve, and the Naval Reserve Policy Board, Eighth Naval District. As an inactive Reservist he has served with both Marine Reserve units and Naval Reserve units in Dallas. He has

been chairman of the Dallas Recruiting District Assistance Council since 1974.

A Fellow of the American College of Dentists, International College of Dentists and Academy of General Dentistry, Dr. Vaughn is also a member of the American Dental Association and the State Legisla-

tive Council of the Texas Dental Association. He is immediate past president of the Dallas County Dental Society, past president of the Dallas Chapter of the Naval Reserve Association, and a member of the Dallas Chamber of Commerce Military Affairs Committee and the Military Order of World Wars.

## BUMED SITREP

### AMPHETAMINES MISUSED? . . .

Over the past few months a considerable amount of information has been published concerning amphetamine use and abuse in the U.S.

In a review of its amphetamine prescription trends, one large naval regional medical center found that six drugs containing amphetamines were stocked in the region's medical facilities: Dex-amyl #1, Dexamyl #2, Dexedrine 5 mg, Dexedrine Spansule 10 mg, Dexedrine Spansule 15 mg, and Eskatrol Spansule. From 1973 to 1976 an 18% reduction in amphetamine use was noted in this region. Results of the study showed that 35% of amphetamine prescriptions were written for the treatment of obesity, and that two-thirds of these prescriptions for obese patients were written by civilian physicians. The rest of the amphetamine prescriptions were written to treat minimal brain dysfunction in children and apparent narcolepsy.

The Surgeon General has urged commanding officers of Navy medical facilities to review their command's use of amphetamine-containing drugs. If amphetamines are prescribed excessively, commanding officers should review with their medical staffs the need to avoid using these drugs except for approved medical indications.

### WORK WITH STUDENTS . . .

Naval Reserve officers who are faculty members or administrators of medical schools are needed to serve as medical school liaison officers (MSLOs). MSLOs help their school's Navy-sponsored students with naval orientation and career counseling. The MSLO can also arrange recruiting presentations for physicians completing graduate medical education, and can develop other leads to recruit fully trained physicians.

MSLOs will meet with students once a month and be available to counsel

them at other times. To assure retirement point credit for MSLO work, prospective MSLOs should affiliate with a unit of the local Reserve readiness command, such as a surgical team or volunteer training unit, and then secure additional duty orders to serve as an MSLO.

Officers interested in becoming an MSLO—and who would like to help plan a national conference for MSLOs to be held later this year—should contact their area's Reserve readiness command or write to Bureau of Medicine and Surgery, Code 36, Navy Department, Washington, D.C. 20372.

### OB/GYN CERTIFICATION . . .

Applicants for admission to certification examinations given by the American Board of Obstetrics and Gynecology must have an unrestricted license to practice medicine in a state or territory of the U.S., or a province of Canada. The American Board of Obstetrics and Gynecology has reaffirmed this requirement for all applicants, including members of the Armed Forces.

### WORD TO THE (AUDIT) WISE . . .

Activities scheduled for a periodic audit are encouraged to:

- Ensure compliance with Joint Commission on Accreditation of Hospitals standards for review of professional and administrative services, and evaluation of outpatient services and inpatient medical care. (See BUMED Instruction 6320.54 for details.)
- Ensure that all clinics make maximum use of the central appointment system for outpatients.

**NEW NUMBER . . .** BUMED's Aerospace Medicine Operations Branch (Code 511) has moved. The mailing address hasn't changed, but the Branch's new phone number is (Area code 202) 254-4237, Autovon 294-4237.

## On Duty

# Surgical Team Deploys for NATO Exercises

*Providing medical care for some 80,000 men participating in NATO exercises is a task to try the stamina of any surgical team. But it's also a tremendous learning experience, says ENS J.F. Gollogly (MSC), recalling his recent deployment with a team from Naval Regional Medical Center Camp Lejeune, N.C. Here is ENS Gollogly's account of his 2½-month assignment:*

"Augment the USS *Guadalcanal* for NATO exercises *Teamwork 76* and *Bonded Item 76* for a period of approximately 73 days," read the message assigning Camp Lejeune's Surgical Team 15 to North Atlantic exercises last fall.

Surgical Team 15 includes a general surgeon, an orthopedic surgeon and an anesthesiologist, as well as two nurses, ten hospital corpsmen and a Medical Service Corps officer (myself). All are staff members at NRMCC Camp Lejeune. Although the team trains annually with Camp Lejeune Marine units, we usually deploy only in emergencies such as natural disasters. So when we boarded the *Guadalcanal* on 29 August 1976, it was quite an event—especially for the two physicians who had never been to sea.



Our schedule was as follows:

- Rendezvous with NATO ships at Scapa Flow, Scotland.
- Travel to Norway and operate off the Norwegian coast at Orland for *Teamwork 76*.
- Move to the coast of Denmark, near Esberg, for Operation Bonded Item.

**Life at sea.** In our first few weeks, team members had a chance to adjust to life at sea. The team was responsible for medical care for the crews of 60 ships from various NATO countries—approximately 80,000 men. Among our patients were several men who were injured when the USS *Kennedy* collided with the USS *Bordelon* off the coast of Scotland. Other patients treated during the exercises were a Dutch chief petty officer with appendicitis, a French sailor with fractures of the radius and ulna, a British sailor with a fractured tibia and fibula, and many other patients with assorted lumps and bumps. Seasickness struck 200 *Guadalcanal* crewmembers during bad weather on the way to Scotland and on our trip back to the United States.

By the time the deployment was over, our team had admitted 62 patients to the sick bay ward and performed 26 operations. We had also treated some 1,000 outpatients, and had performed 350 X-ray examinations and more than 300 laboratory procedures. It was hard work, but nine days of liberty in Southampton, England, and four days' liberty in Hamburg, Germany, helped ease the strain.

The cruise was a great learning experience and a chance to meet colleagues from other nations. We talked with a French physician who



Surgical team performs appendectomy during Operation Teamwork 76

came aboard to evacuate a patient, and with a Dutch physician who visited our sick bay. While on liberty, our team medical officers toured hospitals in Southampton and Hamburg. And I accompanied our orthopedic surgeon on a visit to the Esberg, Denmark, hospital, a very modern and efficient facility.

**Lingo.** Aside from learning nautical lingo, we had a chance to learn about the life and customs of our NATO allies. Our limited command of foreign languages was sometimes an obstacle, but when we didn't know a man's language we would first try the universal French. If that failed, we tried Spanish, then Italian, then German. On only one occasion did we strike out: in Esberg, when we hailed a taxi to take us to the local hospital, our driver didn't speak anything but Danish. After failing to communicate in several languages we pointed to a white cross, hoping he would understand. But he didn't—he misinterpreted our signal as meaning we were Swiss. Finally we saw an ambulance, pointed to it, and he promptly took us to the hospital.

We learned that Navy ships are equipped to handle most casualties. In only a few cases did we have to aeromedically evacuate a patient. We also had to replace some medications with better products that had come into use since our last deployment.

The feeling of accomplishment we got from a job well done made the deployment worthwhile. After all, sailors join the Navy to see the world—and we did!

—ENS J.F. Gollogly, MSC, USN

USS *Guadalcanal* (LPH-7)  
en route for NATO exercises



# Scholars' Scuttlebutt

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## How to Get the Training Program You Want

Application time is here. Scholarship students who will graduate in late 1977, or in May or June 1978, are beginning to make decisions about training that will determine to a great extent their professional future. The Navy must figure prominently in these plans.

Most of you will serve an operational or nonspecialty tour during your continuum of professional experience in the Navy. As presently projected, this operational tour will be scheduled at the end of your first year of graduate medical education when the interruption will least disrupt your training and when the experience will contribute substantially to your development as a Navy physician.

We have consolidated many first-year training positions in the medical and surgical specialties into a basic medicine and basic surgical training year. These broad-based programs will provide the educational foundation for entry into specialty training.

We know that you have many questions about your training. Navy Medical Department program managers have already discussed with many of you your concerns, reservations, and questions about your future. To help you further, we are publishing below general guidelines on the application process, portions of the application package which will be sent to you this month, and a list of directors of medical education at the Navy's training hospitals.

### GENERAL GUIDELINES

1. The Navy is no longer seeking first-year trainees under the National Intern and Resident Matching Program of the American Medical Association (AMA). It is essential that you, as a participant in a Navy subsidy program, know this.

2. In accordance with the provisions of the Armed Forces Health Professions Scholarship Program (AFHPSP), you are required to apply for your first year of graduate medical education in the Navy. The following schedule will apply:

1 May 1977—Scholarship students entering (or about to enter) their senior year will receive a list of first-year positions available in 1978. Application forms and instructions will also be supplied.

1 Sept 1977—Closing date for receipt of applications in the Bureau of Medicine and Surgery.

September 1977 (exact date to be announced)—Selection committee meets in Washington, D.C., to select first-year trainees for all hospitals.

October 1977 (exact date to be announced)—Candidates advised of their selection or nonselection.

15 Nov 1977—Notification of selection or nonselection for deferments mailed to students who have requested deferment of more than one year.

3. We plan to offer 250 first-year positions in eight naval hospitals. Programs will include basic medicine, basic surgery, family practice, obstetrics/gynecology, pathology, pediatrics and psychiatry.

Programs in basic medicine and basic surgery will be broad-based. Programs in family practice, obstetrics/gynecology, pathology and pediatrics will consist of 12 months in a single discipline. First-year training in psychiatry will consist of no more than three months of psychiatry, four months of internal medicine, and other electives.

All students who wish to continue beyond the first year of graduate medical education will be required to reapply for training.

4. AFHPSP students must list *all* naval hospitals, in order of preference, that offer the training program they desire. Candidates may also list alternate program preferences, with hospital preferences for these alternate choices. AFHPSP students who do *not* list all naval hospitals that offer their desired program will be assigned preferences for the unlisted hospitals. Additional specialty preferences will not be assigned, however.

It is important that candidates for all basic medicine and basic surgery programs state the discipline in which they are currently interested. Candidates may



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COLLEGE RANK IN CLASS NAVYERS 1100/15 (6-69) (Formerly NAVPERS 1028)				FORM APPROVED BUDGET BUREAU NO. 45-R 283		
NAME		DATE OF BIRTH		APPLICANT FOR:		
YEARS OF ATTENDANCE	MAJOR	SENIORITY HOURS CREDITED TO DATE (Undergraduate)	GRADE AVERAGE	TYPE OF DEGREE	DATE OF GRADUATION/GRADUATING	
RANK IN CLASS	NUMBER OF GRADUATES	INSERT NUMERICAL RANKING OR APPROPRIATE PHASE, SUCH AS "UPPER TENTH", "MIDDLE TENTH"				
ASSOCIATION WITH ROTC UNIT AT SCHOOL		ROTC BRANCH OF SERVICE				
<input type="checkbox"/> IS ASSOCIATED <input type="checkbox"/> WAS ASSOCIATED		<input type="checkbox"/> ARMY <input type="checkbox"/> NAVY <input type="checkbox"/> AIR FORCE <input type="checkbox"/> NOT ASSOCIATED				
Based upon observation while a student at this institution, he is (is not) recommended for the program for which applying.						
The guide lines below are furnished to assist you in evaluating the applicant's personal characteristics, and to standardize the grading to the greatest extent possible:						
OUTSTANDING . . . No other person of superior caliber known by the person making the evaluation. EXCELLENT . . . . . Well above average. Very few superiors. GOOD . . . . . Generally average. Equal to the majority of persons in the applicant's age and experience groups. SATISFACTORY . . . . Generally below average, but acceptable. UNSATISFACTORY . . Not acceptable.						
		OUTSTANDING	EXCELLENT	GOOD	SATISFACTORY	UNSATISFACTORY
PROFESSIONAL APTITUDE						
SERIOUSNESS OF PURPOSE						
INITIATIVE						
PERSONALITY						
APPEARANCE						
ABILITY TO INSPIRE CONFIDENCE						
CAPACITY FOR INDEPENDENT THINKING						
COOPERATIVENESS AND RECEPTION OF CRITICISM						
GRADUATE SCHOOL STUDENTS ONLY						
1. The above named applicant						
<input type="checkbox"/> Is a student in good standing in his _____ year of studies toward the degree of _____						
<input type="checkbox"/> Has been accepted for the next entering class convening on _____						
2. If he continues his studies on an uninterrupted schedule, he may expect to graduate on the _____ day of _____, 19____ (Exact day of expected graduation required if in senior year.)						
3. Class standing for years of completed studies (use relative or percentile ranking; if student is not ranked, give adjective rating of Outstanding, Excellent, Good, Satisfactory, Unsatisfactory):						
First year _____		standing in class of _____				
Second year _____		standing in class of _____				
Third year _____		standing in class of _____				
SENIOR MEDICAL AND SENIOR DENTAL PROGRAM APPLICANTS ONLY						
DATE OF COMPLETION OF 30 YEAR		DATE THE 4TH YEAR OF STUDY (Including Clinical Work required as part of 4th year) WILL BEGIN				
NAME OF INSTITUTION		SIGNATURE OF SCHOOL OFFICIAL		DATE		

S/N 0106-020-0500

## IMPORTANT

This package contains important information concerning pathways that are available to you for graduate medical education. Read it carefully and submit your application in accordance with the instructions provided.

If you will be graduating prior to May or June 1978, and you are selected for training in the Navy, your training will commence upon graduation providing the director of the program for which selected has a vacancy in his training quota at that time. If there is no such vacancy, your training will commence on 1 July 1978. The scholarship stipend will be discontinued for students in the Armed Forces Health Professions Scholarship Program on the date of completion of requirements for their degree if more than 45 days will elapse prior to receipt of the degree. Candidates who receive their degree early but cannot commence training prior to 1 July 1978 will be considered on an individual basis for temporary active service at their hospitals to await the commencement of training.

Extra copies of the application form are provided in the event you have friends or classmates in Navy programs that may be interested in training in a naval hospital.

College Rank in Class Form

Please read Privacy Act Statement on reverse.

From: (Rank) (Name) (SSAN)

Address:

To: Chief, Bureau of Medicine and Surgery (ATTN: Code 314), Navy Department, Washington, D.C. 20372

Subj: Graduate Medical Education and appointment in the Navy Medical Corps application for (for use only by students in their last year of medical or osteopathic school)

Encl: (1) Physical condition statement

1. It is requested that this letter be considered as my application for the training program(s) that are listed below in the order of my preference and, if I hold an appointment in a Navy student program it is requested that it also be considered as my application for an appointment in the Navy Medical Corps.

PROGRAM	SPECIALTY INTEREST	HOSPITAL PREFERENCE

INSTRUCTION: Under "PROGRAM" indicate the programs of your choice as noted on the enclosed listing. If Basic Medicine or Basic Surgery is stated as a preference, indicate in column headed "SPECIALTY INTEREST" the specialty that you plan to eventually enter. Such a statement of preference will not be binding but will reflect only your interest at this time. Under "HOSPITAL PREFERENCE" list hospitals from left to right in order of preference that offer the program sought.

REMARKS

Check one of the blocks.

- ☐ Prime preference is for Navy program.  
☐ Prime preference is for civilian program.  
☐ No prime preference.

Additional pieces of paper can be attached to provide the selection committee with any special information you desire to have considered.

2. Enclosure (1), the statement of my physical condition, is forwarded for inclusion in my file.

3. Under separate cover I shall have the dean of my school provide an up-to-date transcript of my grades and a letter of recommendation. I understand that additional letters of recommendation can be forwarded to the Bureau of Medicine and Surgery at the address previously noted in this letter.

4. In the event a training position is not available for me in a naval hospital, it is requested that I be granted a deferment of my active service obligation until I shall have completed training in a civilian institution as noted below (applicable only to students in the Armed Forces Health Professions Scholarship Program and Ensigns 1915).

SPECIALTY

TO BE COMPLETED ON month/year

5. I understand that if I am not selected for training in a naval hospital and I am not granted a deferment to complete full specialty training in a civilian institution, my active service will be delayed for one year only to participate in one year of graduate medical education in a civilian institution. At the end of that period I will be called to active service. (Applicable only to students who hold appointments in Navy student programs).

Signature

Telephone Number

Date

EXACT date of anticipated graduation  
Month - Day - Year

If you will complete the course requirements for your degree more than 45 days prior to the anticipated date of graduation, please indicate the completion date in this space:

Number of Dependents

I am a participant in: (Check one)

Graduate Degrees

Major

- ☐ Active Duty Medical/Osteopathic Student Program  
☐ Armed Forces Health Professions Scholarship Program  
☐ Senior Medical Student Program  
☐ Ensign (1915) Program  
☐ None of the above

Privacy Act Statement:

Under the authority of 10 USC, 5 USC 301 and Executive order 9597, information requested herein will be used to evaluate your application for graduate medical education. Disclosure of the information is voluntary, but failure to provide the information may result in delay and possible disapproval of the application.

SPECIALTY AND NUMBERS OF PROGRAMS OFFERED IN GRADUATE MEDICAL EDUCATION  
TO GRADUATING STUDENTS  
1978 - 1979 TRAINING YEAR

	FAM PRAC	OB/GYN	PATH	PEDS	PSYCH	BASIC MED	BASIC SURG	TOTAL
CAMP PENDLETON	9							9
CHARLESTON	9							9
JACKSONVILLE	9							9
PENSACOLA	8							8
BETHESDA		3	3	3	4	22	14	49
OAKLAND		3	2	3	3	18	14	43
PORTSMOUTH VA		6	2	5	4	20	16	53
SAN DIEGO		4	3	5		37	21	70
TOTAL	35	16	10	16	11	97	65	250

Special Notes: (A) 1st yr programs in Fam Prac, OB/GYN, Path and Peds will be 12 months in a single discipline.

(B) Programs in Psych will offer a broad-based clinical year to include 4 months in Int Med, not more than 3 months in Psych, plus electives.

(C) The Basic Med and Basic Surg training year will contain a minimum of 4 months of Int Med, 4 months of Surg, plus electives. These programs are structured in order to provide the trainee with the background required to enter training in specific specialties at later dates. Current plans are that trainees in Basic Med will be prepared to enter residency programs in Anes, Derm, Int Med, Neuro, Ophth and Radio. Basic Surg trainees will be prepared to enter residency programs in all surgical specialties including Oto, Ortho, Urol, Gen Surg and Neuro Surg. Ample opportunity will exist for crossovers into other specialties after completion of the first year of Graduate Medical Education in any of the programs listed in the breakdown at the top of this page.

(E) Electives will be offered according to the trainees preference as approved by the program director.

(F) All selections for first year GME are for one year only. All trainees who desire to continue training beyond that year must reapply upon reporting to their training hospital.

use the remarks section of the application to draw the selection committee's attention to any important personal considerations.

**5. Selection for Navy programs:** AFHPSP students who are selected for a training program in a naval hospital will be *required* to enter that program. Scholarship students who state inappropriate preferences for specialties not listed as available (such as pediatric allergy, gastroenterology, and plastic surgery) will be considered for training positions in the basic specialty—pediatrics, basic surgery, basic medicine, etc.

**6. Nonselection for Navy programs:** Scholarship students not selected for training programs in a naval hospital will be so advised, and will be free to seek first-year graduate medical education positions in the civilian sector.

**7. Active-duty deferments:** At the same time they apply for Navy training programs, AFHPSP students who desire a full residency in a civilian institution must request permission to delay serving their active-service obligation in order to participate in such training. The civilian institution need not be named, but the desired specialty and length of the delay must be clearly stated. Students *not* selected for Navy programs will be advised in time to allow them to submit lists of preferred civilian institutions to the National Intern and Resident Matching Program (AMA) or the Intern Registration Program of the American Osteopathic Association (AOA).

Students who are not selected for Navy programs, nor for active-duty delays to complete full training in a specialty, will be assured of a maximum of one year's delay in order to complete an internship or the first year of graduate medical education in a civilian institution. Prior to 15 August of this "delayed" year, they may reapply for training in the Navy; if not selected, they may then apply for a deferment to complete a full residency.

If applications for second-year positions or deferments cannot be approved, students will be called to active service as general medical officers at the end of their first year of training. In subsequent years they will be eligible to apply or reapply for residencies in naval hospitals. If not selected, they may apply or reapply for release from active duty in order to pursue a residency in a civilian institution; upon completion of training, they must return to active service to fulfill their remaining obligation.

All requests for residencies and active-duty delays will be considered in light of the Navy's anticipated needs. Candidates are cautioned that requests to complete full specialty training, whether in a naval hospital or a civilian institution, may not be approved. The needs of the Navy must remain paramount. However, all candidates are assured of completing one year of graduate medical education in either a Navy or civilian

program.

Students who will begin their first year of graduate medical education in 1977 have been advised by separate correspondence of the procedure through which they can apply for further training in the Navy, or for active-duty delays to complete full specialty programs.

It is essential that all scholarship students prepare themselves for the contingency that numerical limitations may preclude their selection for first-year programs in naval hospitals. Candidates are urged to register with the National Intern and Resident Matching Program (AMA) or the Intern Registration Program (AOA). Of course, students who wish to seek training on their own if not selected by the Navy are free to do so. Students registered with an intern placement plan will withdraw from the plan if selected for a Navy program.

As in the past, the Navy will offer unfilled first-year positions to qualified students who do not obtain positions under the AMA or AOA placement plans. Information concerning such vacancies will be available each year after the AMA and AOA placement announcements are made.

**8.** Students are urged to visit the naval hospitals in which they are interested for interviews, the results of which are forwarded to BUMED to become part of the student's application file. Interviews must be completed prior to 15 Aug 1977; results must be received in BUMED before 25 August. Candidates should not consider a program director's indication of acceptance as the final placement determination. It is not uncommon for two or more program directors to state a preference for the same candidate, and in such cases a decision must be made through the internal Navy matching operation. The results of this matching may place a candidate in a hospital or a program that is lower on his or her preference list than anticipated.

**9.** The provisions of these guidelines that pertain to active-duty delays, and the requirement to state multiple hospital preferences, do not apply to students in the Medical and Osteopathic Scholarship Program (MOSP) or the Senior Medical Student Program (SMSP). These students may continue to apply to as many Navy and civilian programs as they desire. However, they may participate in civilian training programs only during their first year of graduate medical education. Application procedures for training in naval hospitals are as stated in these guidelines, and the schedule of dates pertains.

**10.** It is the responsibility of students to arrange for their medical or osteopathic school dean to complete the college-rank-in-class form and append to it a copy of the student's up-to-date transcript and a letter of recommendation, to be forwarded to the Bureau of Medicine and Surgery.

## Education & Training

Hearts pound when . . .

### Resusci-Anne Meets the Fleet

Improving emergency care for heart attack victims—that's the goal of a new training program offered at Naval Regional Medical Clinic Pearl Harbor for hospital corpsmen assigned to Pacific Fleet ships. In the clinic's cardiopulmonary resuscitation-basic life support course, corpsmen learn to recognize respiratory and cardiac distress, and to perform the life-saving techniques of artificial ventilation and closed-chest heart massage. Students practice using advanced life support equipment to transport victims to a medical facility; they also talk about the role lifestyle plays in provoking heart attacks, and review medical principles of cardiopulmonary resuscitation.

The 15-hour course includes lectures, supplemented by slides and videotapes, and practice sessions with mannequins. On returning to their ships, students teach resuscitation techniques to their shipmates, any one of whom may someday use his know-how to save the life of a fellow crewmember.

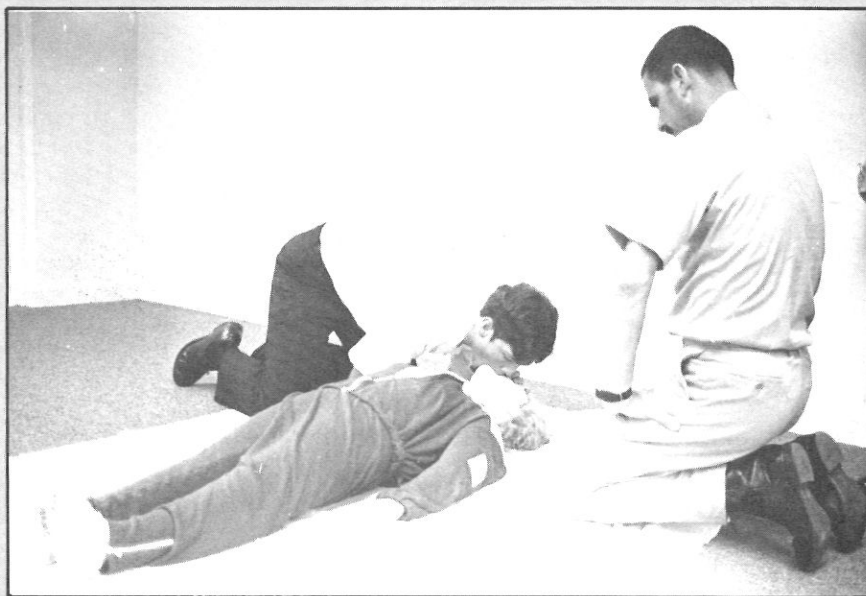
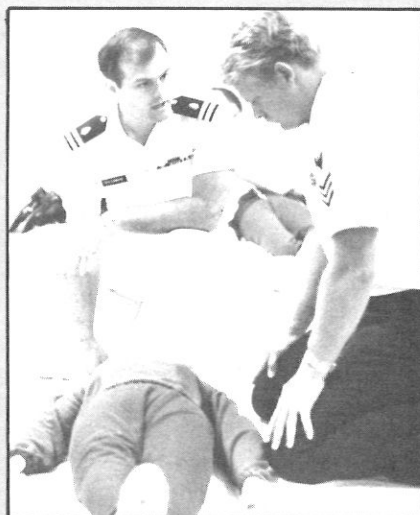
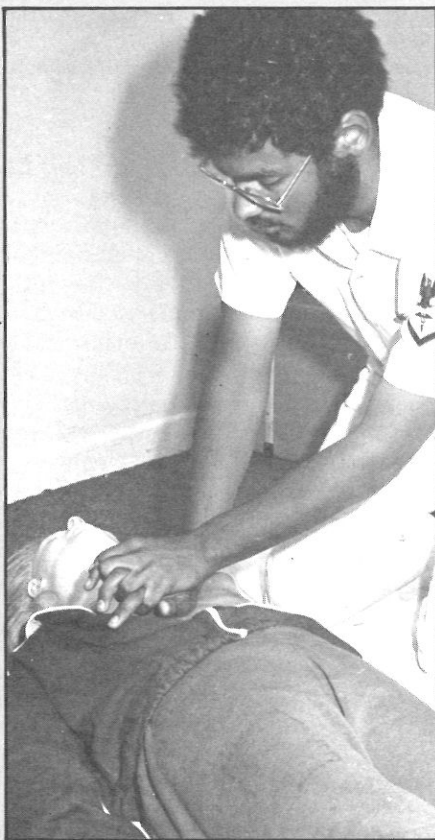
—Story by JO2 R. Zabriskie. Photos by PH3 Paul Abreu.



Army COL Robert Kerrigan, Pacific Fleet medical adviser, shows chest thumping technique during CPR practice session.







Clockwise from left: LCDR Carol Hildebrand (NC), coordinator of the CPR course, demonstrates closed chest heart massage on practice dummy, Resusci-Anne. • HM3 Anthony Ambris tries heart massage. Corpsmen spend six hours practicing CPR techniques on mannequins. • Instructor LT Richard Dunn (NC) explains resuscitation procedures to HM1 Leland Colby. Students later work in teams of two for practice sessions. • HM1 Herbert Swinden shows how to check for breathing when reviving a heart attack victim. • HM3 Charles Crowe practices mouth-to-mouth resuscitation while teammate HMC Walter Wykoff looks on. Each month, the CPR course is offered to 15 corpsmen assigned to ships in the Pacific Fleet.

# Preventing Fires in Medical Facilities

The National Fire Protection Association (NFPA) has developed standards, codes, and recommended practices for preventing fires in hospitals and other buildings. These standards, codes and recommendations are used as guidelines for building codes and are sometimes incorporated verbatim into state and local laws. NFPA documents are also used by the Joint Commission on Accreditation of Hospitals to evaluate safety in hospitals.

NFPA documents are defined as follows:

A *code* contains only mandatory provisions. Explanatory material is included in footnotes, notes in fine print, or appendices.

A *standard* includes mandatory and suggested procedures.

A *recommended practice* gives only suggested procedures.

A *manual* or *guide* contains no requirements or recommendations, and is published only to give information.

A *tentative document* has been tentatively approved by the NFPA and is published to generate public comment. It does not include the NFPA's official recommendations.

Here are the major NFPA codes, standards, and recommendations that apply to health care facilities:

- Standards in the NFPA 56 series prescribe proper use of gases in health care facilities.

NFPA 56A, *Inhalation Anesthetics* (1973), discusses proper use of explosive anesthetics. Also covered are the safe operation and construction of surgical suites.

NFPA 56B, *Respiratory Therapy* (1976), deals with hazards of using compressed gases in oxygen-enriched atmospheres. Accompanying this standard is NFPA 56HM, *A Manual for the Home Use of Respiratory Therapy* (1976).

NFPA 56C, *Laboratories in Health Care Institutions* (1973).

NFPA 56D, *Hyperbaric Facilities* (1976).

NFPA 56E, *Hypobaric Facilities* (1972).

NFPA 56F, *Nonflammable Medical Gas Systems* (1974).

NFPA 56G, *Inhalation Anesthetics for Ambulatory Health Care Facilities* (1974).

- NFPA 76A, *Emergency Electrical Systems* (1973), describes how medical facilities should obtain electricity if normal electrical service is disrupted.

- NFPA 76BT, *Tentative Standard for the Safe Use of Electricity in Health Care Facilities* (1973), includes an appendix with a good explanation of how to use electrical equipment safely.

- NFPA 76C, *Recommended Practice for the Use of High Frequency Equipment* (1976), covers proper use of electrosurgical units and diathermy machines.

- NFPA 3M, *Manual on Hospital Emergency Preparedness* (1976), discusses how to prepare for external disasters—mass casualties, for example—and internal emergencies such as hospital fires. This manual should be included as a reference in hospital fire and disaster plans.

- NFPA 101, *Life Safety Code* (1976), has a section (Chapter 10) on fire prevention in hospitals.

- NFPA 70, *National Electrical Code* (1975), includes a section on health care facilities (Article 517) which describes how to follow standards outlined in NFPA 56A, 76A and 76BT when installing or repairing electrical wires.

The National Fire Protection Association has just established a health care section to promote communication between NFPA technical committees and health care professionals. This section publishes *Code Red*, a newsletter covering changes in NFPA standards and the impact of NFPA standards on fire prevention. Navy health care workers interested in hospital fire prevention may join the health care section and receive its newsletter by sending a \$40 membership fee to the National Fire Protection Association, 470 Atlantic Ave., Boston, Mass. 02210.

A basic health care library, which comprises the NFPA documents described above, is available from the NFPA for \$33. Questions on NFPA standards and codes may be directed to CDR John P. Swope, MC, USN, Code 416, Bureau of Medicine and Surgery, 2300 E St. N.W., Washington, D.C. 20372.

## Instructions and Directives

### Armed Forces nutritional standards

In this correction to the tri-service instruction on nutritional standards, daily nutrient allowances for military members have been increased slightly. A table of nutrient allowances for pregnant and lactating women has been deleted.—BUMED Instruction 10110.3E of 30 Aug 1976, corrected copy.

## **Transferring non-Navy military patients**

This instruction gives revised accounting classification citations to use when funding temporary duty travel of active-duty Army and Air Force personnel and their dependents who receive medical care at Navy medical facilities. Pending formal revision of this instruction, activities should insert the word "dependent" before "patients" in the second line of the description of the first citation in paragraph 4.—BUMED Instruction 7301.3X of 2 Dec 1976.

## **Reporting civilian employment of Medical Department officers**

Naval activities shall submit to BUMED an annual report of remunerative professional civilian employment of their Medical Department officers. Navy hospitals and regional medical and dental centers shall submit consolidated reports for their component activities. Reports are due by 10 January for the preceding year.—BUMED Notice 1610 of 9 Dec 1976.

## **Managing transportation equipment**

The Naval Medical Materiel Support Command manages vehicle allowances assigned to BUMED-commanded activities, and the Naval Facilities Engineering Command, Chesapeake Division, helps resolve technical problems involving the vehicles.

Vehicle allowances are reviewed annually and may be adjusted. Vehicles may be reassigned. Activities should remove excess vehicles from their inventory.

Emergency requests for vehicles should be submitted to the Naval Facilities Engineering Command with a justification. The Naval Facilities Engineering Command may purchase a vehicle for emergency use only if an activity cannot borrow one or secure one from Navy surplus supplies. Commands are urged to keep vehicles in good condition, since fiscal constraints preclude purchasing new ones.—BUMED Instruction 11240.4A of 20 Dec 1976.

## **Medical command inspection schedule**

The Inspector General, Medical has announced a tentative schedule through June 1978 for inspections of BUMED commands and professional/technical visits to medical departments of non-BUMED-commanded activities. Commands will be notified of the exact dates about two months before the inspection.—BUMED Notice 5040 of 21 Jan 1977.

## **Skill resource file for dental technicians**

A skill resource file has been established to identify dental technicians trained as ceramists, dental hygienists, oral surgical technicians or preventive dentistry technicians. Dental technicians trained in these spe-

cialties may ask BUMED Code 6113 to place their name in the file. Commanding officers must certify that the applicant meets criteria outlined in this instruction.—BUMED Instruction 1221.2 of 25 Jan 1977.

## **Writing prescriptions correctly**

Prescriptions written at Navy medical facilities must be legible, and must have the following information:

- patient's full name, and age if less than 12 years.
- date prescription was written.
- proper name of drug (abbreviations are not acceptable).
- strength of drug, in metric units.
- quantity to dispense (in metric measurements), not to exceed maximum quantities established by each Navy medical facility.
- directions for taking drug.
- prescription writer's signature.
- for controlled drugs, printed name and social security number of the prescription writer.—BUMED Notice 6710 of 27 Jan 1977.

## **Certifying nurses to administer intravenous substances**

Each Navy medical facility shall maintain a program for teaching and certifying nurses to administer intravenous fluids and drugs. The certification course must be taught by a medical officer who has completed the first year of graduate medical education. An intravenous certification form (NAVMED 6550/7) shall be signed by the director of clinical services and inserted in the official record of each nurse who completes the training. Intravenous certification shall be renewed every two years. A suggested outline for a certification course in intravenous therapy is an enclosure to this instruction.—BUMED Instruction 6550.3A of 10 Feb 1977.

## **Medical board reports**

Medical board reports should be processed within ten working days. To reduce report processing time, commands should:

- ensure that reports are transcribed promptly.
- ask medical officers to review rough drafts of reports promptly.
- have patients readily available to review the report and sign the patient's statement.

Medical boards must relate in their report how a patient's medical condition interferes with his or her performance of military duties.

When submitting medical board reports for departmental review, commands should ensure that copies of the patient's previous medical board reports are also included so that all pertinent medical information is available for review.—BUMED Notice 6100 of 14 Feb 1977.



# Notes & Announcements

## NURSE CORPS CONTINUING EDUCATION COURSES APPROVED

The first meeting of the Nurse Corps Continuing Education Approval and Recognition Program (CEARP) review board convened 8 March 1977 at the Naval Health Sciences Education and Training Command, Bethesda, Md. The following 11 continuing education programs were approved for the contact hours indicated in parentheses:

### NRMC Jacksonville, Fla.

- I.V. Certification Program (3.5)
- Nursing Audit Workshop (4)
- Basic Life Support (Cardiopulmonary Resuscitation) (6)
- Orthopedic Problems in Children (2)
- Total Joint Replacement (1.5)

### NAMRU-3, Cairo, Egypt

- Health Care Agencies in Egypt (16)
- The "Look" of Current Research in Egypt (12)

### NRMC Newport, R.I.

- Alcohol and Alcoholism (2)

### NRMC Charleston, S.C.

- Nursing Management of the Hypertensive Patient (30)

### NRMC Memphis, Tenn.

- Diabetes and You—Today and Tomorrow (23.5)

### NRMC Oakland, Calif.

- Audit Workshop for Beginners (6)

CEARP review boards meet quarterly, with the next board scheduled to meet in July. Programs should be submitted for review no later than 15 June 1977.

## AMSUS TO HOLD ANNUAL MEETING

"The Federal Health Services in the Next Decade" is the theme of the 84th annual meeting of the Association of Military Surgeons of the United States (AMSUS), to be held 27 Nov-1 Dec 1977 at the Shoreham Americana Hotel, Washington, D.C.

More than 75 papers will be presented, and a large selection of professional exhibits will supplement the scientific sessions. A film program is also scheduled.

General chairman for the meeting is James H. Erickson, M.D., director of the Bureau of Medical Services, Health Services Administration, U.S. Public Health Service. Faye G. Abdellah, Ph.D., chief nurse officer and director of the Office of Nursing Home Affairs at the Public Health Service, is program chairman. James D. Felsen, M.D., staff director, Office of the Surgeon General, Public Health Service, is program vice chairman.

For further information write: AMSUS, 10605 Concord Street, Suite 306, Kensington, Md. 20795.

## GROUP PSYCHOTHERAPY CONGRESS TO MEET

The Sixth International Congress of Group Psychotherapy will be held 31 July-5 Aug 1977 at the Sheraton Hotel, Philadelphia, Pa. Participants from many countries will present a variety of group approaches used in managing emotional disturbances; these approaches include psychodrama, transactional analysis, behavior therapy, and systems analysis. Treating alcoholism and psychosomatic disorders in groups will also be discussed.

For program and registration information, contact Mrs. Zerka T. Moreno, P.O. Box 311, Beacon, N.Y.

## AEROSPACE PATHOLOGY COURSE SET FOR MAY

The Armed Forces Institute of Pathology (AFIP) will offer an aerospace pathology course 25-27 May 1977 in Washington, D.C. Areas to be covered include special autopsy procedures for aircraft accident investigations, procedures for identifying victims, operational correlations, toxicologic examination and correlation, and practical evaluation and correlation of findings.

Applicants should be military residents in aviation medicine, pathologists, or other medical officers. Qualified civilians will be considered on a space available basis. Application information may be obtained from the Director, Armed Forces Institute of Pathology, Attention: AFIP-EDZ, Washington, D.C. 20306.

## AMERICAN BOARD CERTIFICATIONS

### *American Board of Family Practice*

LCDR Howard L. Clinton, Jr., MC, USNR

### *American Board of Obstetrics and Gynecology (Maternal-Fetal Medicine)*

CAPT Robert C. Cefalo, MC, USN

### *American College of Hospital Administrators* *Member*

LCDR David L. Vosloh, MSC, USN

### *Nominees*

- RADM Paul Kaufman, MC, USN
- CDR Francis G. Anderson, Jr., MSC, USN
- CDR Arthur D. Hatten, Jr., MSC, USN
- CDR Roy W. Tandy, MSC, USN
- LCDR Reginald E. Newman, MSC, USN
- LCDR James P. Smith, Jr., MSC, USN
- LCDR Ronald F. Turco, MSC, USN
- LT Richard R. Apgar, MSC, USN
- LT Dean A. Hermann, MSC, USN
- LT Larry G. Lobaugh, MSC, USN
- LTJG J. Thomas Benson, MSC, USN
- LTJG Kenneth R. Randle, MSC, USN
- LTJG Thaddeus H. Sparkman, MSC, USN



Clinical Notes

Administering Swine Flu Vaccine to a Large Shipboard Population

LCDR Thomas J. Humphries, MC, USN

In October 1976, swine flu vaccine was given to 417 male USS *Raleigh* crewmembers, two-thirds of whom were 20 to 29 years old (Table I). The incidence and characteristics of side effects were prospectively evaluated.

Twenty-one men (5%) reported side effects (Table II). All were in the two youngest age groups, with most of the reactions occurring in the reporting category 20 to 29 years old. The average age of recipients aboard the *Raleigh* who reported side effects was 20.7 ± 2.37 (± 1 SD), with a range of 18 to 27 years.

On the average, side effects developed 18.95 ± 5.6 hours after vaccination, with a range of 3 to 24 hours. Eleven (52.4%) of the 21 patients reporting side effects were febrile with an oral temperature of more than 99 F. While the range of temperature was 99.0 F to 102.6 F, only three individuals had temperatures over 101 F. Eight patients reported nonproductive cough as a side effect; four of these eight men had diffuse rhonchi that cleared with coughing. Chest examination of these four patients was normal 24 hours after vaccination.

When the vaccine was administered, many crewmembers asked questions about the procedure and a

TABLE I. Distribution of Population and Reactions by Age Group  
N=417

Age (years)	% of Population	% Reporting Reactions
10-19	17.3	1.9
20-29	67.4	3.1
30-39	13.4	0
40-49	1.9	0

TABLE II. Side Effects of Swine Flu Vaccine  
N=21

Symptom	Number of Patients	Incidence
Headache	14	66.7%
Malaise	12	57.1%
Chills	8	38.0%
Cough	8	38.0%
Nausea	6	28.6%
Fatigue	4	19.0%
Vomiting	4	19.0%
Anorexia	2	9.5%



few hesitated to be vaccinated. Some men who were hesitant were concerned about newspaper reports of deaths associated with swine flu vaccine. Others feared that side effects would hinder their job performance or make them more likely to injure themselves on machinery in their spaces.

Our study of this "captive" population demonstrated that the incidence of side effects from the vaccine was low and that whatever effects occurred were mild and transient. The information obtained in this study was used to allay patients' fears and promote better participation in subsequent influenza immunization programs.

LCDR Humphries is assistant chief of the Clinical Investigation Service, Naval Regional Medical Center Philadelphia, Pa. 19145. The author thanks HMC G.W. Piercy, HM3 J.M. Wisniewski, and HM3 C. Hunsucker of the USS *Raleigh* (LPD-1) Medical Department for clinical and technical assistance in performing this study.

USS Raleigh (LPD-1) at anchor in the Chesapeake Bay

# Mucoid Impaction of the Bronchus: An Adjunctive Method of Therapy

LT Bart Chernow, MC, USN  
Steven A. Sahn, M.D.  
Clifford W. Zwillich, M.D.

It is often difficult to select the best therapy for patients who present with mucoid impaction of the bronchus. First described by Shaw (1) in 1951, this syndrome has a well-documented association with asthma (2). Therapy has varied: physicians have treated the condition with mucolytic agents such as acetylcysteine (2,3,4) and with extensive surgery (5).

In this report, we will describe a noninvasive technique we used to successfully treat an asthmatic patient who had mucoid impaction of the bronchus. The technique may be valuable for treating not only this problem, but also related respiratory disorders.

### PATIENT REPORT

A 21-year-old female was evaluated in the emergency room of Colorado General Hospital because of a two-day history of wheezing and nonproductive cough. She denied having fever, chills, chest pain or hemoptysis but reported that dyspnea and wheezing increased with exercise. Her asthma had been diagnosed when she was 4 years old. There was no history of nasal polyps, sinusitis or sensitivity to aspirin.

On physical examination the young woman appeared healthy except for moderate respiratory distress. Her blood pressure was 108/54, oral temperature 37.4 C, pulse rate 116 beats per minute, and respiratory rate 24 breaths per minute. Positive findings were limited to the thorax and lungs. The trachea was deviated slightly to the right and there was decreased expansion of the right anterior and posterior thorax. Fremitus was decreased on the right. On percussion, the right hemidiaphragm was found to be significantly elevated. Breath sounds were decreased on the right and diffuse expiratory wheezes were noted. A chest roentgenogram showed marked loss of volume on the right side of the

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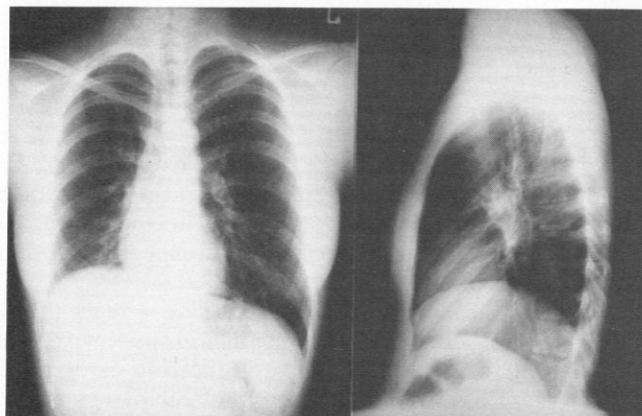


FIGURE 1. Pre-therapy roentgenograms of the postero-anterior and lateral chest show marked volume loss on the right side of the chest. Note mediastinal shift to the right and marked elevation of right hemidiaphragm.

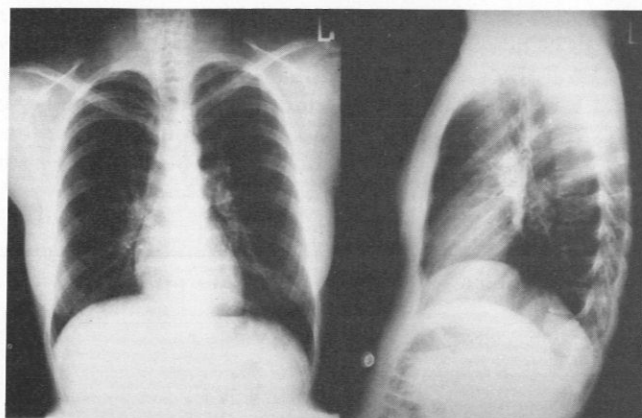


FIGURE 2. Post-therapy roentgenograms of the postero-anterior and lateral chest show increased volume on the right side and the mediastinum returning towards the left side.

TABLE I. Arterial Blood Gases

	Before therapy	30 minutes after therapy
PaO <sub>2</sub>	50 mm Hg	70 mm Hg*
PaCO <sub>2</sub>	28 mm Hg	34 mm Hg*
pH	7.43	7.41

\*Normal values for Denver, Colo. (altitude 1,600 meters):

PaO<sub>2</sub> 70 ± 5 mm Hg  
PaCO<sub>2</sub> 35 ± 2 mm Hg

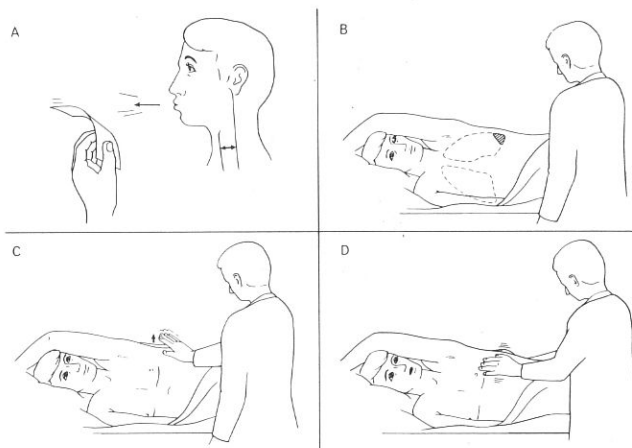
chest (Figure 1). The patient's arterial blood gases, analyzed while she breathed room air, showed hypoxemia, hypocarbia, and a compensated respiratory alkalosis (Table I). The leukocyte count was 9,900/cu mm with 4% eosinophils.

In the setting of acute exacerbation of bronchial asthma, we diagnosed her condition as atelectasis secondary to inspissated mucus localized in the large airways on the right. When subcutaneous terbutaline, intravenous aminophylline and hydration produced no improvement after two hours, we used a modification of standard bronchial drainage techniques. Our procedure, described below, lasted 10 minutes. After therapy the patient was able to expectorate three large, greenish-yellow mucus plugs totaling 200 cc of sputum. (Prior to this therapy she could not expectorate any bronchial secretions, even after deep breathing and coughing.) The sputum contained a high percentage of eosinophils. After the procedure, the patient's dyspnea decreased markedly and signs of atelectasis disappeared. A second roentgenogram (Figure 2) and arterial blood gas analysis (Table I) confirmed the clinical impression of improvement.

## TECHNIQUE

Our technique, a modification of the bronchial drainage procedure used in many hospitals, does not incorporate percussion (chest clapping). Instead, physical examination and radiography are used to identify areas of poor ventilation, which are then segmentally aerated by positioning the patient on his side and stimulating the skin over the area. The procedure is performed as follows:

1. Hydrate the patient, and institute bronchodilator therapy.
2. Explain to the patient that a cough is a form of forced expiration and must be preceded by a deep inspiration. A double cough after a deep breath is more likely to cause expectoration.
3. Teach the patient to breathe with pursed lips. Show the patient how to make a piece of paper bend by blowing on it (Figure 3A). This breathing technique allows the respiratory rate to slow and the tidal volume to increase (6).
4. Position the patient on his side with the uninjured lung closest to the table. The arm next to the involved lung should be raised over the patient's head (Figure 3B).
5. Aerate the area of atelectasis by placing your hand over the area and, while rubbing your palm across the patient's skin, encouraging him to breathe deeply enough to raise your hand (Figure 3C).
6. With your hands on opposite sides of the patient's body, vibrate the area of atelectasis as the patient breathes out (Figure 3D). Repeat for seven breathing cycles or until a cough is precipitated.
7. Ask the patient to cough. Occasionally, changing the patient's position will help move a mucus plug.



**FIGURE 3.** Proper pursed-lip breathing (3A) prevents collapse of the large airways during bronchial drainage. The patient should be positioned with the involved lung away from the table, and with the arm nearest that lung raised above the head (3B). The physician rubs his hand over the area (3C) and instructs the patient to inspire so as to raise the hand. Then the physician vibrates the area, with his hands on opposite sides of the chest (3D).

## DISCUSSION

Mucoid impaction of the bronchus has been associated most frequently with asthma (2), but has also been seen in patients with chronic bronchitis, cystic fibrosis (7) and allergic bronchopulmonary aspergillosis (8). However, Urschel and his colleagues (2) found no specific pulmonary disease in 15% of the patients they studied.

Although the characteristic clinical roentgenographic features of mucoid impaction of the bronchus have been described (1-5,9), failure to recognize this syndrome leads to unnecessary diagnostic and therapeutic measures. Bronchoscopy, used both to diagnose and to treat mucoid impaction of the bronchus, is potentially dangerous to the asthmatic patient (10). Once the diagnosis is established, some physicians advocate using mucolytic agents (2,3), but we have had poor results using acetylcysteine on patients with chronic bronchitis and asthma. Occasionally bronchospasm occurs in such patients (11). Since asthma is the disease that most commonly underlies mucoid impaction of the bronchus, we believe that modified bronchial drainage may be a safer adjunctive method of therapy.

While bronchial drainage has been in vogue since the early part of this century (12), its efficacy is still controversial (13). Bronchial drainage has been shown to increase sputum production acutely (14,



15), decrease sputum viscosity (16), increase arterial  $PO_2$  (16), and improve airway conduction (14). Limited long-term studies suggest that the prognosis for patients with chronic obstructive pulmonary disease is not improved by bronchial drainage (17, 18).

## SUMMARY

In this report we have described a modification of bronchial drainage which can be used by physicians in their office, in the emergency room or in the hospital. A similar modification has been described previously for the respiratory care of patients who have undergone cardiac surgery (19). Bronchial drainage should be one of the first therapies used in treating mucoid impaction of the bronchus, because such drainage appears to be effective, safe, noninvasive, and easy to perform. It may also be useful for treating patients with acute asthma and acute bronchitis complicating chronic obstructive pulmonary disease.

## REFERENCES

1. Shaw RR: Mucoid impaction of the bronchi. *J Thorac Surg* 22:149, 1951.
2. Urschel HC, Paulsen DL, Shaw RR: Mucoid impaction of the bronchi. *Ann Thorac Surg* 2:1, 1966.
3. Braman SS, Whitcomb ME: Mucoid impaction of the bronchus. *JAMA* 223:641, 1973.
4. Irwin RS, Thomas HM: Mucoid impaction of the bronchus. *Am Rev Respir Dis* 108:955, 1973.
5. LaForet EG: Mucoid impaction of a stem bronchus. *J Thorac Cardiovasc Surg* 68:309, 1974.
6. Mueller RE, Petty TL, Filley GF: Ventilation and arterial blood gas changes induced by pursed lips breathing. *J Appl Physiol* 28:784, 1970.
7. Waring WW, Brunt CH, Hilman BC: Mucoid impaction of the bronchi in cystic fibrosis. *Pediatrics* 39:166, 1967.
8. Spotnitz M, Overholt EL: Mucoid impaction of the bronchi associated with aspergillus: report of a case. *Dis Chest* 52:92, 1967.
9. Tsai SH, Jenne JW: Mucoid impaction of the bronchi. *Am J Roentgenol Radium Ther Nucl Med* 96:953, 1966.
10. Sahn SA, Scoggin CH: Fiberoptic bronchoscope in bronchial asthma—a word of caution. *Chest* 69:39, 1976.
11. Bernstein IL, Ausdenmoore RW: Iatrogenic bronchospasm occurring during clinical trials of a new mucolytic agent acetylcysteine. *Dis Chest* 46:469, 1964.
12. Petty TL: Physical therapy. *Am Rev Respir Dis* 110:129, 1974.
13. Jones NL: Physical therapy—present state of the art. *Am Rev Respir Dis* 110:132, 1974.
14. Clarke SW, Cockrane GM, Webber B: Effects of sputum on pulmonary function. *Thorax* 28:262, 1973.
15. Sanchis J, Dolovich M, Rossman C, et al: Lung clearance in patients with airways obstruction. *Bull Physiopathol Respir* 9:325, 1973.
16. Pham QT, Peslin R, Puchelle E, et al: Respiratory function and the rheological status of bronchial secretions collected by spontaneous expectoration and after physiotherapy. *Bull Physiopathol Respir* 9:293, 1973.
17. Peterson ES, Esmann V, Houcke P, et al: A controlled study of the effect of treatment on chronic bronchitis. *Acta Med Scand* 182:293, 1967.
18. Opie LH, Spalding JMK: Chest physiotherapy during intermittent positive-pressure respiration. *Lancet* 2:671, 1958.
19. Howell S, Hill JD: Acute respiratory care in the open heart surgery patient. *Phys Ther* 52:253, 1972.

## DON'T MISS

# Is the Carrier State for Hepatitis B Antigen Transmitted Genetically?

A Navy scientist and a researcher from the University of Washington in Seattle have refuted a hypothesis that predisposition to the carrier state for hepatitis B antigen is inherited as an autosomal recessive gene.

In *Nature* [260(5553):715-716, April 22, 1976], C.E. Stevens of U.S. Naval Medical Research Unit No. 2 and R. Palmer Beasley report on a study they undertook to test the hypothesis that the hepatitis B antigen carrier state is transmitted genetically. The authors compared rates of hepatitis B antigenaemia in

children whose parents were both hepatitis B antigen carriers, to similar rates in children whose mothers were carriers but whose fathers' serum was antibody positive for hepatitis B. Based on results of the survey, the researchers conclude that there is insufficient evidence for an autosomal recessive mode of inheritance for hepatitis B antigen carrier disposition; instead, the dose of infectious hepatitis virus the child received, and the child's age when infected with hepatitis B virus, were shown to be more important determinants of the car-

rier state than genetic background. The discrepancy between these findings and the findings of Blumberg and colleagues may indicate that family segregation analyses, especially of a contagious disease, cannot readily discriminate between the roles of environmental and genetic factors.

Report No. TR-703, "Lack of an Autosomal Recessive Genetic Influence in Vertical Transmission of Hepatitis B Antigen," is available from U.S. Naval Medical Research Unit No. 2, APO San Francisco, Calif. 96263.

# Calcium Hydroxide as a Root Canal Filling Material

LCDR Ernest W. Meharra, DC, USN    CAPT Charles J. Cunningham, DC, USN    George B. Pelleu, Jr., Ph.D.

Although successful endodontic therapy has been practiced for many years, the search for the ideal root canal filling material continues. Gutta-percha, introduced in 1867, remains the filling material of choice. The basic criteria for successful root canal therapy are the development of an adequate seal at the apical foramen and total obturation of the root canal space (1).

Recent apexification studies have demonstrated calcified tissue closure of the open apices, with complete root development, following application of calcium hydroxide and camphorated parachlorophenol (2). The calcified tissue mass had no consistent morphological pattern but appeared to consist of irregular dentin, cementum and bone. Torneck et al (3) concluded that this calcified mass developed because of the "residual odontogenic cells of the pulp and the connective tissue elements which migrate down into the pulp space from the periapical region." Reattachment of a functional periodontal ligament occurred where the root formation was complete and severe inflammation was absent (3). A similar biological reaction might occur if a calcium hydroxide filling material were used in routine root canal therapy. In the apexification treatment, filling the teeth with calcium hydroxide was used only as a temporary measure until a permanent root canal filling could be placed.

As early as 1940, researchers were performing successful root canal fills using a variety of techniques and materials, with calcium hydroxide the primary therapeutic ingredient (4). In 1962, Laws (5) found that a mixture of calcium hydroxide and propylene glycol had the physical properties needed for clinical use, with no impairment of the mixture's therapeutic value. In that study, partial pulp extirpa-

tions were performed to ensure that some apical tissue would remain for histological examination after the teeth were extracted. Laws found deposits of cementum-like tissue, and concluded that the advantages of this "biological root filling" warranted further study (5,6). Since he performed partial pulpectomies, he made no attempt to determine whether a root canal filling composed of calcium hydroxide alone would provide the effective seal needed for successful treatment. No subsequent studies have evaluated the sealing properties of calcium hydroxide.

The purpose of our study was to evaluate by autoradiography the apical sealing capability of a mixture of calcium hydroxide and propylene glycol. This sealing property would be important if a calcium hydroxide-propylene glycol paste were used as a permanent filling material in apexification treatment and, possibly, routine root canal obturation.

## MATERIALS AND METHODS

Forty-six pulp extirpations were performed in extracted anterior teeth. We did routine mechanical instrumentation using a graduated series of files, and prepared the canals to a #50 file size. The canals were repeatedly overinstrumented with a #20 file to obtain a patent foramen, ensuring that the filling material would be exposed. The positive apical stop was 0.5 mm to 1 mm short of the apical foramen.

The filling material consisted of 0.5 gm of finely mixed calcium hydroxide powder mixed with 0.38 ml of propylene glycol. Propylene glycol was chosen to carry the calcium hydroxide because this liquid is nonirritating and nontoxic, does not influence the pH value of the calcium hydroxide, and produces a mixture with a clinically usable, putty-like consistency (5).

We mixed the calcium hydroxide and propylene glycol to a thick paste using a glass slab and metal spatula, and placed the mixture with a pressure syringe and a 23-gauge needle inserted to within 2 mm to 3 mm of the working area of each root canal preparation. The screw plunger was slowly twisted

LCDR Meharra is head of the Dental Department, USS *Guadalcanal* (LPH-7), FPO New York 09501. CAPT Cunningham is chairman of the Endodontics Department, and Dr. Pelleu is chairman of the Research Department at the National Naval Dental Center, Bethesda, Md. 20014.

This project was supported by Bureau of Medicine and Surgery Research Work Unit MRO41.20.02-6052B3ID.

as the syringe was withdrawn. The material was thereby placed apically, and the remainder of the canal filled by twisting the plunger knob. The coronal portion and the endodontic access were sealed with a conventional temporary restoration.

Each tooth, including the sealed access, was coated with clear fingernail polish to within 2 mm of the apical foramen. While the nail polish was still tacky, aluminum foil was adapted over the coated portion and a second layer of polish was carefully applied to seal the edges of the foil.

The teeth were divided into two groups for testing. One group of 23 teeth was immersed in distilled water at 37° C for 10 days, and a group of 21 teeth was immersed for 28 days. Another two 28-day specimens were filled with zinc oxide and eugenol and used as controls. At the end of the time periods, the teeth were placed in a calcium radioisotope solution ( $^{45}\text{CaCl}_2$ , 50 $\mu\text{Ci/ml}$ , neutralized to pH 6.5) for two hours. The aluminum foil was stripped away and the surfaces brushed with a detergent and water. Each tooth was mounted in an acrylic resin die and sectioned horizontally 2 mm and 6 mm from the apical foramen. The resulting 4 mm portion of the root structure was mounted on a die with sticky wax and cut longitudinally through the canal. Cut sections were placed on ultrafast dental X-ray film and secured to a small piece of plastic; this package was wrapped in aluminum foil and placed in a dark container for two days. The film was developed in the normal manner.

Radiographic evidence of leaking was evaluated according to the following criteria:

- No leakage—the root canal filling material was barely distinguishable from the surrounding tooth structure.
- Slight leakage—there was a faint, uniform gray appearance in the root canal area.
- Moderate leakage—there was a definite apical radiolucency that gradually diminished in intensity as the distance from the apex increased.
- Severe leakage—a dark radiolucency appeared throughout the entire root canal.

## RESULTS

The results of the radioisotope evaluation for leakage are shown in Table I. In 14 (61%) of the 23 teeth immersed in water at 37° C for 10 days, the calcium hydroxide seal was totally intact. There was slight leakage in 8 (35%) of the teeth and only one example of moderate leakage. No severe leakage was found.

After 28 days in water, more of the seals had

leaked, and to a greater degree, than seals in the 10-day group. Five (24%) were classified as not having leaked, 4 (19%) had slight leakage, 5 (24%) had moderate leakage, and 7 (33%) had severe leakage. The difference in the degree of leakage with time was significant, according to the chi-square test ( $P < 0.01$ ). The two control teeth containing zinc oxide and eugenol paste (not shown in the table) leaked slightly after 28 days.

## DISCUSSION

The use of calcium hydroxide as a permanent filling material has been a subject of much speculation. Studies have demonstrated that calcium hydroxide can induce calcification and ultimately a physiological closure of the apical foramen (2). If this closure were complete, and if it occurred consistently, a calcium hydroxide root canal fill would have a decided advantage over the inert filling materials we now use.

After experimenting, we adopted a useful technique for placing the calcium hydroxide mixture: with a pressure syringe, we introduced the thick paste into the apical region of the root canal. In a clinical setting a radiograph could be taken to evaluate the placement. The syringe would be reinserted and the remainder of the canal, with all its irregularities, filled as the syringe was gradually withdrawn. The assortment and flexibility of syringe needles would facilitate their use in posterior as well as anterior teeth (7).

Our experiment using a mixture of calcium hydroxide and propylene glycol showed that such a seal does leak. After 10 days, 61% of the teeth remained sealed and after 28 days 24% were sealed. These results may not be clinically applicable, however, since some investigators believe that testing for leakage with small tracer ions constitutes a "heroic type

TABLE I. Radioisotope Leakage of Root Canals Filled with Calcium Hydroxide

Degree of Leakage	Number of Teeth and Immersion Time	
	10 Days	28 Days
None	14 (61%)*	5 (24%)
Slight	8 (35%)	4 (19%)
Moderate	1 (4%)	5 (24%)
Severe	0	7 (33%)
Total	23	21

\*Percentages are computed from totals: 23 teeth immersed for 10 days and 21 teeth immersed for 28 days. A significant difference was noted between leakage found at 10 days and at 28 days ( $P < 0.01$  according to chi-square test).



of evaluation'' (8,9). It should also be noted that in our study the foramen was repeatedly checked for patency with a #20 file. Although this is not a routine clinical procedure, we used this variation to ensure exposure of the test material to the liquid for varying periods of time.

Studies have shown that calcium hydroxide stimulates calcification, both in the apexification procedure and, as recently reported, in normal root canal therapy (10). Even a partial closure might retard the breakdown of the seal and extend its integrity. Complete calcification might then occur before significant leakage resulted.

Although we used propylene glycol, a different liquid or a mixture of calcium hydroxide, zinc oxide, and eugenol might provide the desirable qualities of calcium hydroxide as well as an adequate apical seal. Calcium hydroxide should also be tested as a sealer used with a solid or semisolid core of filling material (10).

The technique and insight provided by our limited study are submitted as a basis for further research. Although most studies have shown apical calcification occurring after apexification treatment, the possibility of obtaining a physiological closure using calcium hydroxide in a routine root canal fill should be further investigated. Long-term research with experimental animals is indicated to assess the *in vivo* adequacy of the seal and the physiological response to a calcium hydroxide root canal filling.

## SUMMARY

We studied the sealing property of a root canal fill composed of calcium hydroxide and propylene glycol. Forty-four extracted teeth were prepared endodontically and filled with the calcium hydroxide mixture. The teeth were divided into two groups for testing: one group was immersed in distilled water at 37° C for 10 days, and the other group was immersed for 28 days. The teeth were then exposed to a radioactive calcium solution and autoradiographed to determine leakage. Leakage occurred in 39% of the teeth after 10 days and increased significantly to 76% of the teeth after 28 days. These findings suggest that a mixture of calcium hydroxide and propylene glycol cannot be used effectively as a permanent root canal filling material.

## REFERENCES

1. Grossman LI: *Endodontic Practice*, ed 8. Philadelphia: Lea & Febiger, 1974, pp 282-285.

2. Frank AL: Therapy for the divergent pulpless tooth by continued apical formation. *J Am Dent Assoc* 72:87-93, 1966.

3. Torneck CD, Smith JS, Grindall P: Biologic effects of endodontic procedures on developing incisor teeth. IV. Effect of debridement procedures and calcium hydroxide-camphorated parachlorophenol paste in the treatment of experimentally induced pulp and periapical disease. *Oral Surg* 35:541-554, 1973.

4. Juge H: Resorbable pastes for root canal fillings. *Int Dent J* 9:461, 1959.

5. Laws AJ: Calcium hydroxide as a possible root filling material. *NZ Dent J* 58:199-215, 1962.

6. Laws AJ: Condensed calcium hydroxide root filling following partial pulpectomy. *NZ Dent J* 67:161-168, 1971.

7. Krakow AA, Berk H: Efficient endodontic procedures with the use of the pressure syringe. *Dent Clin North Am* (9):387-399, 1965.

8. Ainley JE: Fluorometric assay of the apical seal of root canal fillings. *Oral Surg* 29:753-762, 1970.

9. Kapsimalis P, Summit NJ, Evans R: Sealing properties of endodontic filling materials using radioactive polar and nonpolar isotopes. *Oral Surg* 22:386-393, 1966.

10. Manhart MJ: Conventional endodontic therapy and a calcium hydroxide sealant. *Chronicle of the Omaha District Dental Society* 37:226, 1974.

## DON'T MISS

# Insect Repellent Jacket

A lightweight, net insect repellent jacket has proven effective against several common insects and in a variety of climates, say Navy researchers.

In the latest of many field trials of the jacket, Navy and U.S. Department of Agriculture entomologists at Camp Lejeune, N.C., treated the jacket with N, N-diethyl-*meta*-toluamide ("deet") at the rates of 1/8, 1/4, and 1/2 gram of repellent per gram of netting. The 1/4 gram level protected the wearer from mosquitoes for 6 weeks, and from *Culicoides furens* (Poey) for more than 7 weeks. Based on this experiment and results of previous field tests, the scientists concluded that a deet-treated jacket will provide at least 6 weeks of protection against a variety of blood-feeding dipteran species.

While the jacket was not as successful in repelling deer flies, the researchers believe another repellent, 3-Acetyl-2-(dimethyl-5-heptenyl)-oxazolidine, may give better protection against this insect.

The deet-treated jacket will help prevent vector-borne diseases in areas where residual pesticides have failed or have been restricted, the researchers say.

To obtain a copy of "Insect Repellent Jacket: Status, Value and Potential," by LCDR R.H. Grothaus (MSC), J.R. Haskins, C.E. Schreck and H.K. Gouck, write: National Technical Information Service, U.S. Department of Commerce, Springfield, Va. 22151. Ask for NMFR Vol. XXVI, No. 10 of May 1976. The report first appeared in *Mosquito News* [36(1):11-18, March 1976].

# Magic and Play in Pediatric Nursing

LTJG Jose Blanco, NC, USN

In this paper, I will discuss how to use magical effects and play to reduce the anxiety of hospitalized preschool children and to explain certain nursing procedures. Through magic, the child can learn that the nurse is concerned, reliable, and trustworthy, a source of warmth and reassurance.

For a preschool child, hospitalization is a new and often bewildering experience. The child pictures the hospital as very different from any place he has ever been. While what the child sees on entering the hospital may not be alarming in itself, it represents a life so different from his life at home that he is frightened by what may happen. His feelings and fears may cause him to become increasingly dependent on others for support. He may lose interest in former activities and center his attention on the diseased part of his body. He does not understand why his parents cannot shield him from discomfort or pain caused by his sickness, or why they let the physicians and nurses hurt him.

Adding to his anxiety is the fact that he is left in this strange environment by himself. When separated from their parents, young children go through three emotional stages described by Robertson (1) as protest, despair, and denial:

Characteristically in phase 1, the child is restless, cries a great deal, looks eagerly toward sights and sounds which may indicate the presence of his parents; he may at this stage reject comforting by the staff. In phase 2, the child makes fewer attempts to alter the environment; crying diminishes and apathy sets in. It is a mourning state which is frequently misinterpreted as a positive sign. With the onset of phase 3, the child demonstrates interest in his surroundings and acceptance of separation.

The amount of anxiety varies with each child, depending on his developmental level, the extent of his social contacts outside the immediate family, and former separations. Generally, the child who has a strong, exclusive relationship with his mother will have the most severe reaction to separation; children who do not have strong ties to their parents will have little to mourn and will indiscriminately form close ties to staff members (2).

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Because magic has great appeal to children, nurses can use it to arouse the child's curiosity and to overcome indifference and disinterest. The preschool child is imaginative and creative, and the simplest equipment easily takes on magical qualities. A series of wooden boxes or blocks becomes a train; a few small cardboard boxes become a bed, chest of drawers, chair and table to furnish a doll's house (3).

When talking to hospitalized children, the nurse must talk at their level and deal with their interests. Petrillo and Sanger (2) give the example of a child hospitalized after he fell off a bicycle. Using a puppet, the nurse related a modified version of the story of the three bears, inserting the facts of the child's hospitalization. In the nurse's version of the adventure, Goldilocks, a very curious child, investigated the bears' home, trying out everything, including Baby Bear's chair. Because she was too large for it, she broke the chair, but fixed it so it did not look broken. On Baby Bear's return, he sat on his favorite chair, fell, and hurt himself badly. Mama Bear and Papa Bear rushed him to the hospital in the Police Chief Bear's private car so the doctors and nurses could care for him. Once Baby Bear got to the hospital, he needed to have the bumps and sores on his body cleaned. He also needed bandages to make him feel better, and he got extra food and medicines through a little tube in his arm.

As she told the story, the nurse showed the child what treatment he might expect, by demonstrating on the puppet and by talking to the puppet as if it were a patient. For instance, the nurse told the child that Baby Bear was curious about the intravenous feeding tube and wanted to know what was going on; then she explained the function of the tube directly to the Baby Bear puppet. Telling such stories to the child during his examination and treatment helped to humanize the process: the child was not treated as an inanimate object, and was reassured that he was loved and would go home again. The child grew to trust the nurse and the staff, and his anxiety was greatly reduced.

Although puppets are expensive to buy, they can be made easily with a handkerchief or some balloons. Here are directions for simple puppets.

**Handkerchief rabbit:**

- 1. Position one hand open, as in Figure 1. Place handkerchief over the hand.
- 2. Pull end A between fingers 2 and 3, and end B between finger 4 and your little finger to make the rabbit's ears.
- 3. Make a fist and tighten the cloth around the fist and arm to shape a rabbit's head (Figure 2).

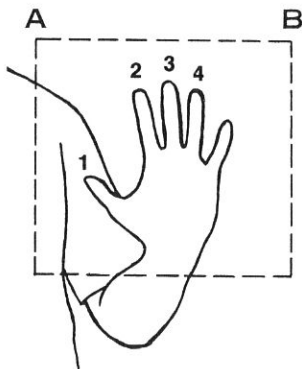


Figure 1

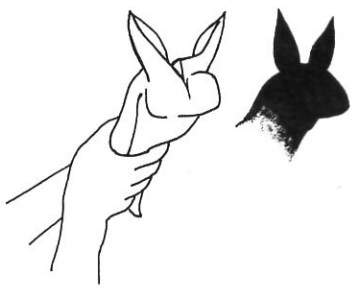


Figure 2

**Balloon dog:**

- 1. Stretch a deflated frankfurter-shaped balloon to its limit.
- 2. While stretching the balloon, inflate it to its full length, then release air to  $\frac{3}{4}$  length.
- 3. Tie a simple knot in the end of the balloon, making sure the knot is airtight.
- 4. A short distance from the tied end, twist several turns to make a bubble. Hold firmly, and make two more bubbles close to the tied end by twisting at regular intervals (Figure 3).
- 5. While holding all bubbles firmly, fold bubble at twist between 2nd and 3rd bubbles, then force 1st bubble into and around the last twist (Figure 4) to form tail and hind legs of animal.

- 6. After assembling hind quarters, twist another bubble to use as body (Figure 5).
- 7. Twist two more bubbles for front legs. Fold leg section and fasten by twisting into 3rd bubble (Figure 6). Twist front leg unit to line up with hind leg unit.
- 8. Twist remaining balloon into four equal bubbles (Figure 7). Fold at twist between 2nd and 3rd bubbles. Twist 1st and 4th bubbles together. Then insert 1st bubble between folded 2nd and 3rd bubbles (ears) to form head.
- 9. Carefully adjust and straighten elements to make a lifelike animal (Figure 8).

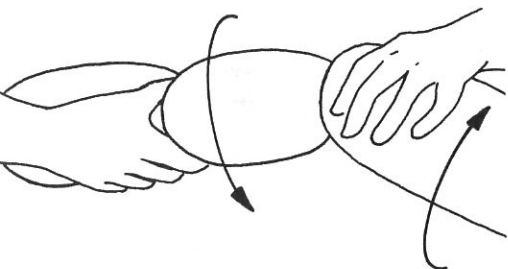


Figure 3

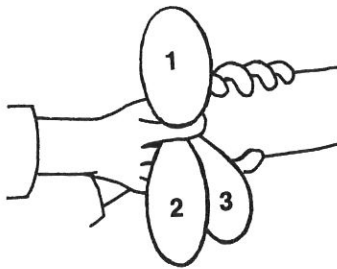


Figure 4

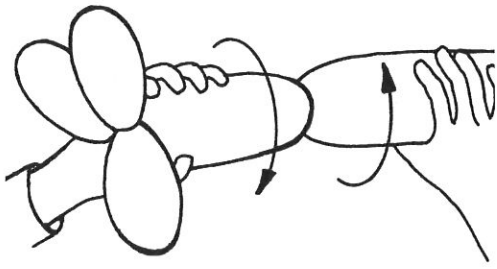


Figure 5

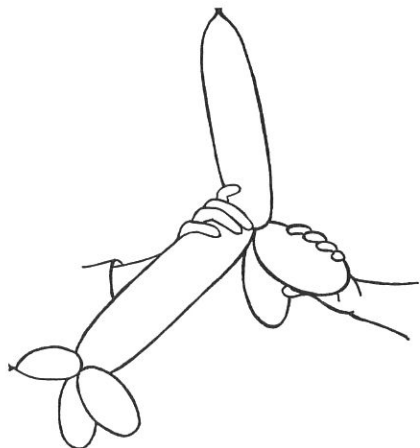


Figure 6

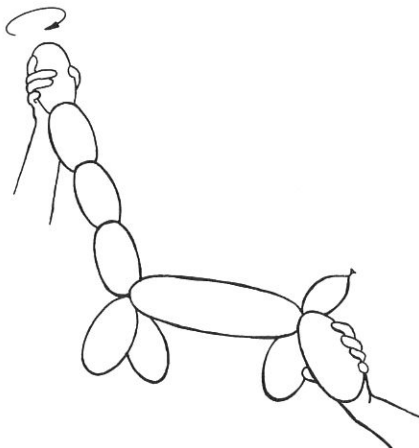


Figure 7

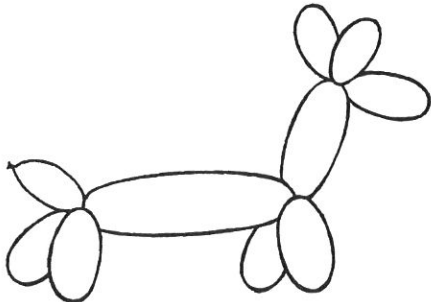


Figure 8



## EXPRESSING FEELINGS

Although the functions of play are not fully understood, we do know that play is crucial for mental health in children. Through play the preschool child learns to express his feelings. But some hospitalized children, because of their illness or physical defects, cannot use their bodies in play. If the child's body is immobilized because of burns, play is complicated by the fact that the child cannot participate directly and by the need to keep the burns clean. Such children cannot express their feelings through play, so nurses have to express those feelings for them.

Preschool children enjoy cartoons and stories with personified animals. To entertain an immobilized child, the nurse can take a toy mouse from a pocket and make the mouse run up and down. While doing this the nurse can talk about the child's needs. For example, the nurse may say, "Look at this mouse. I bet he is looking for something to eat. He is so little. He needs to eat well, otherwise he won't grow big and strong." Then the nurse can talk about the child's nutritional needs, making the discussion an enjoyable game. Here is how to make a mouse "come alive":

### Moving mouse:

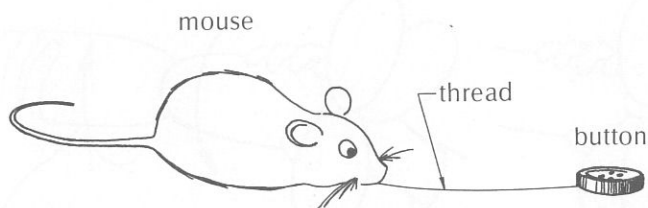


Figure 9

1. Attach a transparent nylon thread to a small rubber mouse. At the other end of the thread attach a button (Figure 9).
2. Now insert the button into your hip pocket, with the thread hanging out about four inches.
3. Place the mouse on your right palm, and put your left hand under your right hand. Then move your right hand forward so that the mouse falls into your left palm.
4. Repeat this movement with the mouse falling from your left palm into your right hand. Repeat steps 3 and 4 rapidly, and it gives the illusion of a mouse running over your hands.

## CONVEYING INFORMATION

Preschool children are as vigorous in physical activity as in their intellectual explorations. They move freely and violently, and enjoy gross motor activity such as climbing, running, and hammering. They like to open doors with a bang and slam them

shut. It is difficult for a child in this age group to keep a limb immobilized, especially when his roommates are ambulatory. In traction, children feel threatened by the nurse because of the pain caused by the weights. They can cope better with the frustrations of being immobilized if they understand why they must not move and the purpose of orthopedic equipment.

The nurse may again use magic to convey information. Say a child is hospitalized with a broken femur. While explaining how the child's broken bone will heal, the nurse can take out a handkerchief and place it on the child's bed. The nurse shows the child a matchstick, and tells him that the match is like his bone. She wraps the match in the handkerchief and tells the child that the handkerchief is like the skin and muscles which cover the bones. Then she has him break the match as many times as he wants. Now she tells him that this is what happened to his leg: the bone has broken. She says that for the match or bone to repair it must be kept straight, and that weights are necessary to help it stay straight. She shows the child how the weights work by letting him pull on both ends of the handkerchief; while the child is holding the ends, she tells him that he will have to keep his leg immobile like the match for a few weeks. After a while the child will ease up on the ends; the nurse explains that he must keep pulling or the match will never be fixed. She tells him that the match hurts a little just as his leg hurts, but the match won't work if it is not repaired. She emphasizes the importance of keeping his leg in good alignment, for only by doing so will it heal.

Now the nurse tells him to lay the handkerchief on his bed and unwrap the handkerchief, and he will see that the match is no longer broken. She explains that his leg will also be as good as before, just like the match. This will have a lasting impression on the child: he will keep his leg aligned after he has seen the results of alignment on the match.

### Match trick:

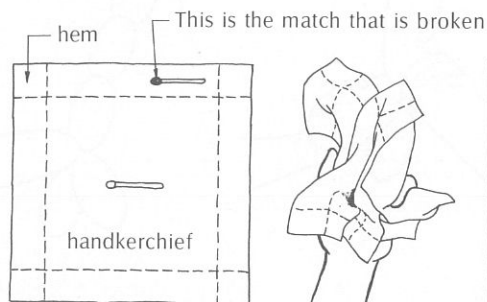


Figure 10

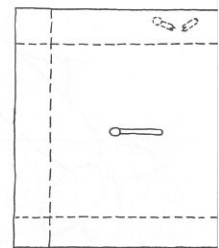


Figure 11

1. Use two matches. Before you approach the child, place a whole match in the middle of the handkerchief, and grasp this handkerchief-wrapped match in your hand (Figure 10).
2. Have the child place the match he will break inside the hem of the handkerchief. (You may have to break some stitches in the hem to make an opening for the match.)
3. The child breaks the match wrapped in the hem, but when the handkerchief is opened, the unbroken match is exposed (Figure 11).

In presenting such tricks, the nurse should always show by her voice and facial expressions that what she has to show and say is important, and that she enjoys what she is doing. She should never look bored and should not give the youngsters the idea that she thinks she is superior to them by using a "look what I can do" manner. Nurses should not use a magical effect with an ending that makes the child feel foolish for being tricked.

For magic to be effective in presenting nursing procedures the magical effect must never become an end in itself. It should be a window through which the child can see the procedure. The magic should not dominate the nursing procedure, for it is not an

essential part of nursing—only a visual way of explaining the nursing procedure to the child.

Nurses may feel that playing with children is not a proper part of their job. Some nurses are so oriented to technical procedures that they completely neglect the child's psychological needs; other nurses may neglect play because they were deprived of play when they were young. Also, playing with hospitalized children has become the job of the play specialist or other specialist.

But the mystery of magic makes it a wonderful tool for presenting nursing procedures. The unsolved puzzle impresses the child and is not easily forgotten. And the nursing that has been associated with magic also makes a lasting impression on the child.

## REFERENCES

1. Robertson J: *Young Children in Hospitals*. London: Tavistock, 1958, pp 20-23.
2. Petrillo M, Sanger S: *Emotional Care of Hospitalized Children*. Philadelphia, Toronto: J.B. Lippincott Co, 1972.
3. Marlow D: *Pediatric Nursing*. Philadelphia, London: W.B. Saunders Co, 1969, p 453.

## DON'T MISS

# Group Therapy Helps Patients Recover from Myocardial Infarction

Short-term group therapy can help patients recovering from myocardial infarctions understand their disease and avoid a second attack, suggest scientists at the Naval Health Research Center in San Diego.

Four researchers—CAPT Richard H. Rahe (MC), CAPT Arthur Hagan (MC), Ransom J. Arthur, M.D., and Terry O'Neil—followed 60 victims of myocardial infarction for up to 18 months after hospitalization. Forty of these patients attended group therapy sessions during the first part of their rehabilitation, while the other 20 patients received no such therapy. Except for group therapy, all 60 patients received the same outpatient follow-up treatment.

Patients who attended group therapy experienced significantly fewer post-infarction cardiac complications than did patients who were not treated in group therapy.

For example, 18 months after their infarction only 19% of group therapy patients had experienced at least one severe coronary heart disease event, versus 58% of patients who received no group therapy.

To gauge knowledge about heart disease, the researchers gave a questionnaire to samples of group therapy patients, patients who received no group therapy, and men who had never suffered a myocardial infarction. Results showed that patients who attended group therapy knew far more about rehabilitation and prevention of their disease than did subjects in the two other groups. Post-infarction patients who had not received group therapy knew as little about heart disease as men who had never had a myocardial infarction.

The researchers suggest that in group therapy, patients gain a solid understanding of cardiac disease

and are then more careful to follow proper treatment and prevention procedures. For instance, after group therapy, patients used sublingual nitroglycerine tablets correctly and became highly motivated to start a physical fitness program. By seeing their self-destructive behavior patterns mirrored in other group members, patients realized the importance of changing their behavior to prevent further cardiac problems. They stopped working excessively and rushing to meet deadlines, and attempted to relax and enjoy life.

"Brief Group Therapy Following Myocardial Infarction: Eighteen-Month Follow-up of a Controlled Trial" is available from the Naval Health Research Center, San Diego, Calif. 92152. Ask for Report No. 74-56. The article was first published in the *International Journal of Psychiatry in Medicine* [6(3):349-358, 1975].

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